

Universal
HISTORY
OF THE WORLD

VOLUME EIGHT

UNIVERSAL HISTORY OF THE WORLD

Written by One Hundred and Fifty of
our Foremost Living Authorities in
all Branches of Historical Knowledge

Edited by
J. A. Hammerton

VOLUME EIGHT
pages 4553-5212

From the Late Victorian
Age to the Present Day



LONDON
THE EDUCATIONAL BOOK CO LTD.
Tallis House Whitefriars

*Printed in Great Britain by
The Amalgamated Press Ltd. London*

VOLUME EIGHT

TABLE OF CONTENTS

Chronicle XXXI. THE WORLD DRIFT TO WAR : 1878-1914

	PAGE
The Concert of Europe	4553
First Balkan War	4555
France in N. Africa	4556
British occupation of Egypt	4558
Events in S. Africa	4560
Gordon at Khartum	4561
The Russo-Japanese War	4567
The South African War	4571
The Spanish-American War	4576
The Agadir Incident	4579
Second Balkan War	4581
Germany's views of Britain	4586
Outbreak of the Great War	4588
Table of Dates for Chronicle XXXI.. .. .	4589

CHAPTER 172

THE BRITISH EMPIRE : AN HISTORICAL STUDY

By Reginald Coupland

Beit Professor of Colonial History in the University of Oxford

The First British Empire	4591
Slave trade and its abolition	4593
Second British Empire	4595
Canada	4596
Effect of slave emancipation	4598
Discontent in Canada	4601
The Durham report	4603
Australia and New Zealand	4608
Founding of Australian Commonwealth	4611
Maori Wars	4613
South Africa	4615
The S. African War	4621
Eastern Ports and Singapore	4625
West and Central Africa	4628
Egypt, the West Indies and the Pacific	4636
The Great War	4640
India's advance towards self-government	4643

CHAPTER 173

CHINA UNDER THE MANCHUS

By J. O. P. Bland

Social Structure of Chinese	4645
Rise of Manchu Dynasty	4647
Reigns of K'ang Hsi and Ch'ien Lung	4650
Classical system of education	4651
Mission of Lord Macartney	4653
The Empress Dowager	4656
The Boxer Rising	4661
The Revolution and end of the Dynasty	4664
Sun Yat Sen's Republican Programme	4665

CHAPTER 174

TRADE UNIONISM : ITS ORIGIN AND GROWTH

By E. Lipson

Reader in Economic History in the University of Oxford

Beginnings of Trade Unionism	4667
Work of Francis Place	4669
The National Union	4671
Public opinion and criticism	4672
The social aspect	4675
Problems of unskilled Labour	4679
Taff Vale Strike and Osborne Judgement	4680
Organization of Women Workers	4681

CHAPTER 175

ECONOMICS AND THE MENACE OF WAR

By Sir L. Chiozza Money

	PAGE
Growth of population	4683
Competition in the coal industry .. .	4685
World colonial development	4686
Germany's 'place in the sun'	4689
Conscription of wealth and work	4691
Effect of war on industry	4693

CHAPTER 176

SCIENCE AND INVENTION

By J. W. N. Sullivan

Communications and transport in the 19th century	4697
The Atlantic cable and telegraphy	4698
Faraday's discoveries	4700
Clerk-Maxwell's researches	4702
Development of wireless	4703
X-rays and electric lighting	4704
Steam engine, motor car and aeroplane	4709

CHAPTER 177

THE U.S.A. ON THE EVE OF THE GREAT WAR

By Robert McElroy, Ph.D., LL.D.

Harmsworth Professor of American History, Oxford

Powers of the President	4711
Roosevelt and the Republicans	4714
Wilson as Governor of New Jersey	4719
Wilson chosen by Democrats	4720
The Election of 1912	4721
Wilson's inaugural address	4723
The Mexican problem	4727
Friction over Panamá Canal	4731
Entry into Great War	4734
Industrial development	4735
Tenth Era, 1914-29	4739
Table of Dates for Chronicle XXXII	4740

Chronicle XXXII. THE GREAT WAR: 1914-1918

Expectations of Central Powers	4741
British Expeditionary Force	4743
Belgium's unexpected resistance	4745
The Marne and the Aisne	4747
Russian advance in E. Prussia	4749
Command of the sea	4751
Turkey enters the War	4752
Dardanelles campaign	4755
The Eastern front	4758
Defence of Verdun	4761
Rumania enters the War	4763
First battle of the Somme	4766
Death of Francis Joseph	4769
Collapse of Russia	4772
Allenby's Palestine offensive	4775
Final German offensive	4778
Attack on Zeebrugge	4779
Débâcle of the Central Powers	4783

CHAPTER 178

SCIENCE AND WAR

By Maj.-Gen. Sir George Aston, K.C.B.

Lecturer on Naval History, University College, London

Effect of war on progress	4785
Development of aviation	4786
Acoustics, wireless and surgery	4790
Gas warfare	4792
Future of warfare on civil population	4796

CHAPTER 179
THE NEW ELEMENTS IN WARFARE

By Colonel J. F. C. Fuller, D.S.O.

	PAGE
Collapse of pre-war tactics	4797
Gunnery in Russo-Japanese War	4799
Beginnings of trench warfare	4802
New artillery tactics	4805
Artillery and battles of attrition	4808
Spade versus gun	4812
Air raids and poison gas	4814
Coming of the tank	4816
Tanks at 3rd Battle of Ypres	4819
Warfare of the future	4824

CHAPTER 180
THE ROLE OF SEA POWER IN THE WAR

By H. W. Wilson

Danger of submarines	4833
Battles of Heligoland and Coronel	4836
Battle of the Falkland Isles	4839
Naval raids on the East Coast	4842
Engagement of the Dogger Bank	4843
The Navy in the Dardanelles	4844
Battle of Jutland	4845
German submarine campaigns	4853
British counter-measures	4855
Success of mosquito craft	4860

CHAPTER 181
EFFECT OF THE WAR ON FAITH AND PHILOSOPHY

By C. E. M. Joad

Problems of pain and evil	4861
Fundamentalism and modernism	4864
Questionnaire on religious belief	4865
Spread of Roman Catholicism	4867
Spiritualism and Christian Science	4868
Table of Dates for Chronicle XXXIII	4872

Chronicle XXXIII. AFTERWARDS : 1918-1929

The Peace Conference and Treaty	4873
Reconstruction of Europe	4878
Severity of peace terms	4879
Estonia and Russia	4881
Italy and Yugo-Slavia	4882
Events in Turkey	4884
Conferences of London and San Remo	4887
French occupation of Ruhr	4890
European dictators	4894
Italy under Mussolini	4896
The Riff campaign	4897
Persia under Riza Khan	4898
Indian reforms	4901
Civil war in China	4902

CHAPTER 182
THE ECONOMIC CHAOS OF EUROPE

By John Maynard Keynes, C.B.
Fellow of King's College, Cambridge

Europe in 1919	4905
Deficiency diseases in Central Europe	4907
Trade slump of 1921	4908
Kapp 'putsch' in Berlin	4910
Germany and reparations	4911
The Dawes Scheme	4913
Speculations in the mark	4914
Collapse of exchanges	4915

CHAPTER 183 THE NEW EUROPE AND THE LEAGUE

By Wickham Steed

Lecturer on Central European History, King's College, London

	PAGE
Germans of the League	4917
Work of Col. House and Gen. Smuts	4919
Attitude of United States	4920
Liberation of the Small Nations	4922
Terms of the Covenant	4923
Functions of the Secretariat	4927
Settlement of various disputes	4928
Defects and prospects	4932
Embodiment of Democracy	4935

CHAPTER 184 THE RUSSIA OF THE BOLSHEVIKS

By F. A. Mackenzie

Reforms of Alexander II	4939
First appearance of Lenin	4940
First Russian parliament	4943
Influence of Rasputin	4944
The Revolution	4947
Rise of Kerensky	4949
Lenin and Trotsky	4950
Kerensky's flight	4953
Peace of Brest Litovsk	4955
The Red Terror and death of the Tsar	4961
Anti-Bolshevik campaigns	4962
The Archangel Expedition	4963
Lenin's system of government	4965
New Economic Policy	4970
Attacks on the Church	4972
Death of Lenin	4974
Conditions to-day	4976

CHAPTER 185 SOCIALISM, COMMUNISM AND WORLD REVOLUTION

By Arthur Shadwell, M.D., LL.D.

Conflicting ideas of socialism	4977
Eighteenth-century leaders	4979
Owen's theories	4981
Continental developments	4983
Political socialism in Germany	4986
England, Australia and the U.S.A.	4987
Austria, Sweden and Denmark	4992

CHAPTER 186 THE ECONOMICS OF CAPITALISM

By J. A. Hobson

Meaning of capitalism	4995
Development of joint-stock companies	4997
Trusts and monopolies in the U.S.A.	4999
Possibilities of a 'Money Power'	5001
Profit-sharing and state ownership	5003

CHAPTER 187 THE NEW PHILOSOPHY OF SCIENCE

By Hugh Elliot

Discoveries in cosmology	5005
Disintegration of matter	5006
Matter not indestructible	5007
Principle of Indeterminacy	5008
Relativity, space and time	5009
The quantum theory	5010
The new symbolism of physics	5011
Physics and psychology	5012

CHAPTER 188 MODERNISM IN LITERATURE AND ART

By Osbert Burdett

Reaction against Victorianism	5013
Precursors of the Modernists	5015
Effect of the Great War	5019

CHAPTER 188— <i>continued</i>		PAGE
The impressionists and post-impressionists		5022
Importance of design		5025
Manet and Cézanne		5026
Cubism and futurism		5029
Vorticism of Wyndham Lewis		5032
Modernist architecture and sculpture		5033
Inspiration from the Great War		5037

CHAPTER 189

PUBLIC HEALTH : A RECORD OF MEDICAL PROGRESS

By Sir George Newman, K.C.B., M.D.

Chief Medical Officer to the Ministry of Health

Ancient systems of medicine and their preservation	5039
Harvey and the circulation of the blood	5041
Some 18th-century pioneers	5042
Baker, Haygarth and Percival	5044
Medical reforms in Army and Navy	5047
The 19th century, a golden age	5048
Jenner and immunity	5049
Bacteriological discoveries	5051
Work of Pasteur and Lister	5053
The New Hygiene	5055

CHAPTER 190

SOCIAL SURVEY OF THE WORLD TO-DAY

By Ian D. Colvin

Changing bases of Sociology	5059
Man's infinite variety	5061
Characteristics of modern civilization	5063
Some speed records	5064
Advantages of civilization	5067
Progress in the U.S.A.	5068
The agrarian movement	5072
Strikes in Great Britain	5075
The Russian experiment	5076
Intelligence tests in U.S.A.	5078
Fate of European democracy	5079
Post-war conditions in Great Britain	5081
The population problem	5083

CHAPTER 191

THE PHILOSOPHY OF HISTORY

By L. P. Jacks

Professor of Philosophy and Principal of Manchester College, Oxford

Meaning of progress	5085
Two schools of thought	5089
Philosophy of the distant future	5091
Decline in quality of work	5094
General index	5095
List of Errata	5209
Classified List of Maps	5210

LIST OF SPECIAL PLATES

PLATES IN FULL COLOURS

Great War: Phoenix Steel Works, Artist's Rifles at Marcoing ..	Facing p. 4772
Ypres Salient, Patrol Work in the North Sea	4773
Modern Art: The Smiling Woman, Augustus John	5026
Landscape with Trees, Van Gogh; Les Grands Arbres, Cézanne ..	5027

PLATES IN DUOTONE

Chinese Architecture under the Manchus	pp. 4657-59
Porcelain of the Manchus	4660
Tanks in Modern Warfare	4829-30
The War on the Sea	4831-32
Modernism in Architecture	5033-35
Modernism in Sculpture	5036

SELECT BIBLIOGRAPHY

CHRONICLE XXXI

- BOURGOIS, EMILE, *Modern France*, 2 vols., 1919
 FAY, SIDNEY BRADSHAW, *The Origins of the World War*, 2 vols., 1929
 HALÉVY, ELIE, *History of the English People in the 19th Century*, Vol. IV, 1926
 PHILLIPS, ALISON, *Modern Europe*, 1908
 ROSE, J. HOLLAND, *Development of the European Nations*, 1915
 STEED, H. WICKHAM, *Through Thirty Years (1892-1922)*, 2 vols., 1924
 TIMES HISTORY OF THE WAR IN S. AFRICA, 7 vols., 1900-9
 WARD, A. W., *Germany*, 3 vols., 1916-18
 WAR OFFICE, LONDON, *The Russo-Japanese War*, 4 vols., 1908

CHRONICLES XXXII-III

- ASPINALL-OGLENDER, Brig.-Gen. C. F., *Military Operations, Gallipoli*, 1929
 EFIDGE, F. M., *A Short History of the Great World War*, 1920
 BUCHAN, JOHN, *A History of the Great War*, 4 vols., 1921
 BURNS, C. DE LISLE, *A Short History of the World (1918-1928)*, 1929
 CHURCHILL, WINSTON S., *The World Crisis*, 1927
 HISTORY OF THE GREAT WAR based on Official Documents, 1920, etc.
 HURD, A. S., *The Merchant Navy*, 1921
 MASEFIELD, J., *Gallipoli*, 1923
 POLLARD, A. F., *A Short History of the Great War*, 1920
 RALEIGH, Sir W. A., *The War in the Air*, 1921
 RAWLINSON, A., *The Defence of London*, 1923
 WAVELL, A. P., *The Palestine Campaign*, 1928

CHAPTER CLXXII

THE BRITISH EMPIRE

- CAMBRIDGE HISTORY OF THE BRITISH EMPIRE, Vol. I, 1929
 COUPLAND, REGINALD, *Raffles*, 1926
 WILBERFORCE, 1923
 EGERTON, H. E., *Short History of British Colonial Policy*, 7th Ed., 1928
 EVANS, I. L., *The British in Tropical Africa*, 1929
 LUCAS, C. P., *The British Empire*, 1915
 Lord Durham's Report on the Affairs of British N. America, ed C. P. Lucas, 1912
 MUIR, RAMSAY, *Short History of the British Commonwealth*, Vol. II, 1924
 NEWTON, A. P., and EWING, J., *The British Empire since 1783*, 1929
 SEELEY, J. R., *Expansion of England*, 1883
 ZIMMEREN, A. E., *The Third British Empire*, 1926

CHAPTER CLXXIII

CHINA UNDER THE MANCHUS

- BLAND, J. O. P., *Li Hung-Chang*, 1917
 BLAND, J. O. P., and BACKHOUSE, E., *China Under the Empress Dowager*, 1920
Annals and Memoirs of the Court of Peking (c. 1620), 1914

- CANTLIE, J., and JONES, C. S., *Sun Yat-Sen and the Awakening of China*, 1912
 KENT, P. H., *The Passing of the Manchus*, 1912
 SUN YAT-SEN, *International Development of China*, 1920

CHAPTER CLXXIV

TRADE UNIONISM

- COLE, G. D. H., *Short History of the British Working Class Movement*, 3 vols., 1925-27
The World of Labour, 1913
 COLE, G. D. H., and ARNOT, R. PAGE, *Trade Unionism on the Railways*, 1917
 CREECH-JONES, A., *Trade Unionism To-day*, 1928
 LIPSON, E., *The History of the Woollen and Worsted Industries*, 1921
The Economic History of England, Vol. I (5th ed.), 1929, Vols. II & III, 1929
 LLOYD, C. M., *Trade Unionism*, 1919
 SLESSER, H. H., and BAKER, C., *Trade Union Law*, 2nd ed., 1926
 WEBB, S. and B., *The History of Trade Unionism*, rev. ed., 1920
Industrial Democracy, 1920

CHAPTER CLXXV

ECONOMICS AND THE MENACE OF WAR

- COLVIN, J. D., *Safety of the Nation*, 1919
 EDGEWORTH, F. T., *Relations of Political Economy to War*, 1915
 MONEY, Sir LEO CHIOZZA, *The Triumph of Nationalization*, 1920

CHAPTER CLXXVI

SCIENCE AND INVENTION

- CRESSY, E., *Discoveries and Inventions of the 20th Century*, 1914
 GLAZEBROOK, R. T., *Science and Industry*, 1917
 SCHUSTER, ARTHUR, and SHIPLEY, Sir ARTHUR E., *Britain's Heritage of Science*, 1917
 THOMSON, J. A., *Progress of Science in the Century*, 1908

CHAPTER CLXXVII

THE U.S.A. ON THE EVE OF THE GREAT WAR

- BASSETT, J. S., *Expansion and Reform (1889-1926)*, 1926
 KEMMERER, E. W., *The A B C of the Federal Reserve System*, 1920
 OGG, F. A., *National Progress (The American Nation Series)*, 1918
 ROGERS, LINDSAY, *The American Senate*, 1926
 ROOSEVELT, THEODORE, *An Autobiography*, 1914
New Nationalism, 1911
 SEYMOUR, CHARLES, *Woodrow Wilson and the World War*, 1921
 SHIPPEE, L. B., *Recent American History*, 1924
 WILSON, T. WOODROW, *The New Freedom*, 1913

CHAPTERS CLXXVIII AND CLXXIX
SCIENCE AND WAR, AND NEW ELEMENTS IN WARFARE

- ASTON, Maj.-Gen. Sir G. G., *War Lessons*, New and Old, 1919
AUSTIN, F. BRITTEN, *The War God Walks Again*, 1926
FRIES, Brig.-Gen. AMOS A., and WEST, C. J., *Chemical Warfare*, 1921
FULLER, Col. J. F. C., *The Reformation of War*, 1923
Tanks in the Great War, 1920
On Future Warfare, 1928
HALDANE, J. B. S., Callinicus, *A Defence of Chemical Warfare*, 2nd ed., 1925
HART, Capt. B. H. LIDDELL, *The Remaking of Modern Armies*, 1927
Paris, or the Future of War, 1925

CHAPTER CLXXX

THE ROLE OF SEA POWER IN THE WAR

- BACON, Adm. Sir R. H. S., *The Dover Patrol*, 2 vols., 1919
CARPENTER, Capt. A. F. B., *The Blocking of Zeebrugge*, 1922
CHURCHILL, W. S., *The World Crisis*, 4 vols., 1923-27
CORBETT, Sir J. S., and NEWBOLT, Sir II., *History of the Great War: Naval Operations*, 1920
FAYLE, C. E., *History of the Great War: Sea-borne Trade*, 3 vols., 1920-24
FROTHINGHAM, Capt. T. G., *Naval History of the World War*, 3 vols., 1924
GARNER, J. W., *International Law and the World War*, 2 vols., 1920
JELlicoe, Viscount, *The Crisis of the Naval War*, 1920
The Grand Fleet, 1919
MANTEY, Rear-Adm. E. von., *Der Krieg zur See*, 1920
SCHEER, Adm. REINHARD, *Germany's High Sea Fleet in the World War*, 1920
SIMS, Adm. W. S., *The Victory at Sea*, reprinted 1921
WESTER WEMYSS, Adm. Lord, *The Navy in the Dardanelles Campaign*, 1924
WILSON, H. W., *Battleships in Action*, Vol. II, 1926

CHAPTER CLXXXI

EFFECT OF THE WAR ON FAITH AND PHILOSOPHY

- CONTEMPORARY BRITISH PHILOSOPHY, ed. J. H. Muirhead, 2 vols., 1925
HARRIS, W. S., *Christian Science and the Ordinary Man*, 1917
JOAD, C. E. M., *Towards a New Religion*, 1929
LAMBETH CONFERENCE, 1920. Encyclical letter from the Bishops with the Resolutions and Reports, 1920
LODGE, Sir OLIVER, Raymond, 3rd ed., 1916
TOWARDS REUNION, by Church of England and Free Church Writers, 1919

CHAPTER CLXXXII

THE ECONOMIC CHAOS OF EUROPE

- BERGMANN, CARL, *The History of Reparations*, 1927
DOBB, M., *Russian Economic Development since the Revolution*, 1927
FRY, A. RUTH, *A Quaker Adventure (nine years' relief and reconstruction)*, 1926
JACK, D. T., *The Restoration of European Currencies*, 1927
KEYNES, J. M., *The Economic Consequences of the Peace*, 2nd ed., 1920
A Revision of the Treaty, 1922
A Tract on Monetary Reform, 1923
MANCHESTER GUARDIAN, *Reconstruction Supplements*, 1923
SCHACHT, HJALMAR, *The Stabilisation of the Mark*, trs. R. Butler, 1927

CHAPTER CLXXXIII

NEW EUROPE AND THE LEAGUE

- BAKER, PHILLIP NOEL, *The League of Nations at Work*, 1926
ECONOMIC CONSEQUENCES OF THE LEAGUE (World Economic Conference), intr. Sir A. Salter, 1927
HARRIS, H. WILSON, *What the League of Nations Is*, 1925
INTERNATIONAL LABOUR OFFICE, *Unemployment; Report of London Conference*, 1924
LEAGUE OF NATIONS, *The Covenant Explained*, introd. G. Murray, 1920
See also various official publications of the League

CHAPTER CLXXXIV

THE RUSSIA OF THE BOLSHEVIKS

- BARING, Hon. MAURICE, *The Russian People*, 2nd ed., 1914
BRAILSFORD, H. N., *The Russian Workers' Republic*, 1921
BUCHANAN, Sir GEORGE W., *My Missions to Russia*, 2 vols, 1923
DENIKIN, Gen. A. I., *La Décomposition de l'armée et du pouvoir*, février-septembre, 1917, 1922
FARBMAN, M. S., *After Lenin*, 1924
GILLIARD, P., *Thirteen Years at the Russian Court*, trs. F. A. Holt, 1921
GORKY, MAXIM, *Écrits de Révolution*, trs. André Pierre, 1922
GUEST, L. HADEN, *The New Russia*, 1926
KERENSKY, A. F., *The Prelude to Bolshevism: the Kornilov Rebellion*, 1919
KROPOTKIN, P., *The Terror in Russia*, 5th ed., 1909
LENIN, N., *The Great Initiative*, trs. P. Lavin, 1920
MACKENZIE, F. A., *Russia before Dawn*, 1923
MAVOR, JAMES, *The Russian Revolution*, 1928
POPOV, G., *The Tcheka and Red Inquisition*, 1925
STALIN, I., *The Theory and Practice of Leninism*, 1925
TROTSKY, LEV., *The Real Situation in Russia*, 1929

CHAPTER CLXXXV

SOCIALISM, COMMUNISM AND WORLD REVOLUTION

- BEER, M., *History of British Socialism*, 1929
 KAUTSKY, K., *The Labour Revolution*, 1925
 LENIN, N., *The State and Revolution*, 1917
 LORWIN, L. L., *Labor and Internationalism*, 1929
 SEE, H., *Modern Capitalism*, 1928
 SHADWELL, A., *The Socialist Movement*, 1824-1924, 1925
 SOMBART, W., *Der Moderne Kapitalismus*, 1927

CHAPTER CLXXXVI

ECONOMICS OF CAPITALISM

- ASHLEY, W. J., *The Economic Organization of England*, 1914
 CRESSY, EDWARD, *Outline of Industrial History*, 1925
 HOBSON, J. A., *The Evolution of Modern Capitalism*, 1917
 The *Industrial System*, 2nd ed., 1910
 MARSHALL, ALFRED, *Elements of the Economics of Industry*, 3rd ed., 1899
 MARX, KARL, *Capitalism*, 1887
 MEAKIN, W., *The New Industrial Revolution*, 1928
 WEBB, S. & B., *The Decay of Capitalist Organization*, 1923

CHAPTER CLXXXVII

NEW PHILOSOPHY OF SCIENCE

- BRAGG, Sir WILLIAM H., *X-rays and Crystal Structure*, 1924
 EDDINGTON, A. S., *Space, Time and Gravitation*, 2nd ed., 1921
 Theory of Relativity and its Influence on Scientific Thought, 1922
 EINSTEIN, ALBERT, *Theory of Relativity*, trs. R. W. Lawson, 1920
 ELLIOT, HUGH, *Modern Science and Materialism*, 1919
 PLANCK, MAX, *Origin and Development of the Quantum Theory*, trs. H. T. Clarke and L. Silberstein, 1922
 RUSSELL, BERTRAND, *A B C of Relativity*, 1925
 SULLIVAN, J. W. N., *Aspects of Science*, 1923-6
Atoms and Electrons, 1924

CHAPTER CLXXXVIII

MODERNISM IN LITERATURE AND ART

- BELL, CLIVE, *Art*, 3rd ed., 1916
 Proust, 1928
 MUIR, EDWIN, *Transition*, 1926
 QUENNELL, PETER, Mr. T. S. Eliot, *Life and Letters*, 1929
 RUTTER, FRANK, *Evolution in Modern Art*, 1926
 STWELL, EDITH, *Poetry and Criticism*, 1925
 WILENSKI, R. H., *The Modern Movement in Art*, 1927

CHAPTER CLXXXIX

PUBLIC HEALTH

- COLLIS, E. L., and GREENWOOD, M., *The Health of the Industrial Worker*, 1921
 CREIGHTON, CHARLES, *History of Epidemics in Britain*, 2 vols., 1891-91
 FOSTER, Sir M., *Lectures on the History of Physiology*, 1901
 GARRISON, F. H., *Introduction to the History of Medicine*, 3rd ed., 1922
 HEWLETT, R. T., and NANKIVELL, A. T., *The Principles of Preventive Medicine*, 1921
 KEITH, Sir A., *The Engines of the Human Body*, 1919
 NEWMAN, Sir G., *Interpreters of Nature*, 1927
 Outline of the Practice of Preventive Medicine, new ed., 1926
 OSLER, Sir W., *The Evolution of Modern Medicine*, 1921
 SIMON, Sir JOHN, *English Sanitary Institutions*, 2nd ed., 1897
 VALLERY-RADOT, RENÉ, *Life of Pasteur*, 2 vols., trs. Mrs. R. L. Devonshire, 1902

CHAPTER CXC

SOCIAL SURVEY OF THE WORLD TO-DAY

- AUSTIN, BERTRAM, and LLOYD, W. F., *The Secret of High Wages*, 1926
 BRASOL, BORIS, *The Elements of Crime*, 1927
 DAWSON, Sir PHILIP, *Germany's Industrial Revival*, 1926
 KIDD, BENJAMIN, *Principles of Western Civilization*, 1908
Science of Power, 2nd ed., 1918
Social Evolution, 1891
 O'DWYER, Sir M., *India as I knew it*, 1925
 SPENGLER, OSWALD, *The Decline of the West*, trs. C. F. Atkinson, 1926
 STAMP, Sir JOSIAH, *British Incomes and Property*, 1920
Studies in Current Problems in Finance and Government, 1921
 WALLAS, GRAHAM, *The Great Society*, 1920
Human Nature in Politics, 2nd ed., 1910
 YERKES, R. M., *Psychological Examining in the United States Army*, 1921

CHAPTER CXCI

PHILOSOPHY OF HISTORY

- FISKE, JOHN, *The Destiny of Man viewed in the Light of Human Origin*, 1912
 GROTE, JOHN, *Examination of Utilitarian Philosophy*, ed. J. B. Mayor, 1870
 INGE, W. R., *The Idea of Progress*, 1920
 JACKS, L. P., *The Alchemy of Thought*, 1910
 PROGRESS AND HISTORY, ed. F. S. Marvin, 1921
 RUSSELL, BERTRAND, *Principle of Social Reconstruction*, 1917
Problems of Philosophy, new ed., 1919
Scientific Method in Philosophy, 1914
 SEE, HENRI, *Science et philosophie de l'histoire*, 1928
 SPENCER, HERBERT, *Social Statics*, 1868
Study of Sociology, 6th ed., 1880
 See also bibliography to Chapter CXC

Chronicle XXXI

THE WORLD DRIFT TO WAR: 1878-1914

THE ostensible effect of the Turco-Russian War, followed by the San Stefano treaty and the Berlin Congress, was the establishment or the strengthening of sundry independent principalities in the Balkan peninsula, and the reassertion of the principle that the 'Concert of Europe,' not the particular interests of a successful military power, must have the deciding voice in material redistributions of European territory, which necessarily have their repercussions upon Europe generally. For thirty years to come the Concert of Europe was the background of international politics.

Rift in the 'Dreikaiserbund'

BUT in actual fact the episode had another effect quite as far-reaching though not so superficially obvious. It had brought about the thing which the most powerful statesman in Europe was most anxious to avert, a rupture in the relations subsisting between Germany, Austria and Russia. For in Bismarck's view there were three European powers which counted for Germany, since England's non-intervention could generally be ensured, though definitely to alienate her would be inadvisable: Russia, Austria and France. French hostility to Germany was a matter of course. Austrian hostility had melted away under tactful management; Austrian and Prussian interests no longer clashed, since Germany had identified itself with Prussia; Austrian friendship was the best security available for Germany. But Russia remained.

Germany had a hostile France, which might again become powerful, on one flank. A hostile Russia on the other flank would be a serious menace, especially in conjunction with a recovered France. It was therefore essential for Germany to preserve friendly relations with Russia, only in less degree than with Austria. If Germany should ever be forced to choose between Russia and Austria, she must

choose Austria. Since the French war it had been a main object with Bismarck to maintain the friendliness of the three powers—the 'Dreikaiserbund'—and to avert any complications which would drive Germany into siding with one against the other. But the antagonistic interests of Russia and Austria in the Balkans had been too much even for Bismarck. However skilfully he might pose as the 'honest broker,' the fundamental fact remained that by the Berlin Congress the ambitions of Russia in the Balkans suffered a setback, those of Austria were advanced, and Germany had done nothing to forward Russian interests, though it was at the hands of England that Russia had most conspicuously suffered diplomatic defeat.

There was no open breach between Germany and Russia; but the rift was there. Bismarck suffered from no illusions on that point. It became of the utmost importance to prevent the rift from developing into a breach, but also to find a means of strengthening the two Central powers, in case of accidents; of drawing still closer the bond between those two powers; of keeping France and Russia apart, and of discouraging any rapprochement between either of them and England.

Franco-Russian Rapprochement

NEVERTHELESS, the trouble that Bismarck had been so anxious to guard against developed by degrees. The rift between Russia and the Central empires widened. France, already convalescent, grew stronger as the years passed. The gulf between the despotic tsardom in the east and the democratic republic in the west proved not to be an insuperable barrier. The perpetual sources of friction between England and France on the one hand and Russia on the other proved capable of accommodation. So that at last all Germany convinced itself that those three powers were joint conspirators whose common aim was her own destruction.

And the outcome of that conviction was—Armageddon. These developments, however, were not immediate. For a quarter of a century the British Empire remained in 'splendid isolation,' and France hardly less than Great Britain, though after a long interval the beginnings of amity sprang up between her and Russia; while the effect of the Berlin treaties was at first to intensify the established antagonism between Russia and Great Britain.

Russia's intention had been to create what may be called a Greater Bulgaria, which would be very much the largest of the Balkan states, would dominate Constantinople and control the Aegean coast, and would be Russia's henchman. The revised partition under the Berlin treaties

reduced Bulgaria to about one third of the size proposed by Russia; another third, as Eastern Rumelia, was to be autonomous but under Turkish suzerainty, while Macedonia and the Aegean coast were to be left in Turkish hands but under joint supervision by the powers. The independence of the new Bulgaria, and of Serbia and Montenegro, was to be complete. Austria was to occupy and administer Bosnia. Rumania had to be content with Dobruja instead of Bessarabia, which was annexed to Russia.

Each of the Balkan states was left sorely aggrieved, because each held that it was itself entitled to territories awarded to another; Serbia, Greece and Bulgaria were each convinced that Macedonia belonged of right to her; both Bulgaria and Serbia were denied effective access to the sea; while Rumania was particularly sore because Russia had rewarded her extremely valuable services by appropriating Bessarabia herself.

Great Britain had made a private bargain with the Porte guaranteeing the Asiatic possessions of the Turks—other than those ceded to Russia under the treaties—conditionally upon the carrying out of reforms, and upon the British occupation and administration of the island of Cyprus; which would provide her with a naval station of considerable value in the eastern Mediterranean.

Nor was Russian policy in Bulgaria successful in furthering her own projects. The prince nominated for Bulgaria was the tsar's nephew, Alexander of Battenberg. At the outset, Russian influences predominated, arousing patriotic antagonism to foreign control. But the prince established his own despotic authority by a coup d'état setting aside the theoretically admirable but practically paralytic constitu-



SATIRE ON THE CYPRUS CONVENTION
While the Berlin Congress was in session in June, 1878, Britain and Turkey came to a separate agreement by which the former guaranteed the latter's Asiatic dominions and was allowed, in return, to occupy Cyprus. The Punch cartoon, *A Blaze of Triumph*, represents Lord Beaconsfield carrying a smiling Turk.

By permission of the proprietors of 'Punch'

The World Drift to War



FIRST KING OF BULGARIA

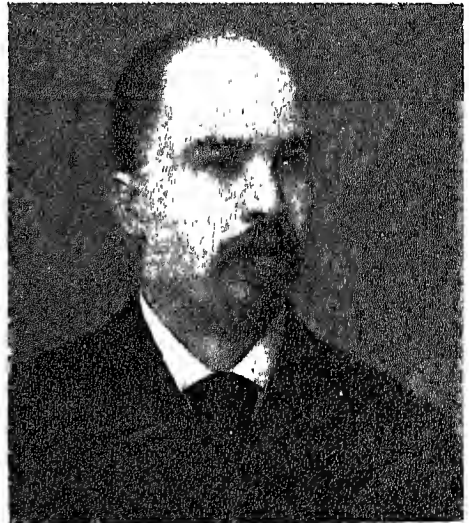
Nephew of the Russian tsar, Alexander of Battenberg was elected first prince of Bulgaria in 1879. His acceptance of the sovereignty of Eastern Rumelia in 1885 aroused Russian indignation and he was forced to abdicate in 1886.

tion which had been bestowed on the principality. Russia applauded, but when he turned his powers to account, assumed the championship of Bulgarian independence, and dismissed the Russian counselors, Russia was wroth. He could and did gain popularity by restoring the constitution (1883), without loss of authority.

In 1885 Eastern Rumelia ejected its Turkish governors and proclaimed its own union with Bulgaria. Alexander hastened to assume the proffered sovereignty. Serbia took alarm—she must be compensated for this Bulgarian expansion. Compensation was not forthcoming, so she declared war, and was badly beaten at Slivnitsa. Austria intervened and stopped the fighting. The Porte saved its face by appointing Alexander governor of Rumelia, a practical acceptance of the fact that he had got it and meant to keep it. Only a threatened blockade by a British squadron restrained Greece from attempting to snatch 'compensation' for herself.

But Alexander's triumph wrought his fall. The tsar's indignation was high; Russian conspirators kidnapped the Bulgarian king, forced him to sign his abdication and carried him over the border. But the national government carried on under his indomitable minister Stambulov; Alexander, less indomitable, threw up the struggle in the face of the tsar's implacable hostility, and resigned the crown which the Bulgarians would have restored. Stambulov, fervidly anti-Russian, remained dictator until in 1887 a new prince was found—ready to take the risks and play a waiting game—in Ferdinand of Saxe-Coburg. Meantime, Stambulov remained at the helm in Bulgaria, while the Balkan states continued to seethe.

As concerned the Balkans, then, the actual outcome was that Russia lost ground, since she succeeded in alienating both Rumania and Bulgaria without definitely attracting Serbia or Greece under her influence. Austria had gained by establishing herself in Bosnia and giving to that region an administration infinitely better than it had ever known before. England had acquired a dominating influence at the Porte, though she was too unsympathetic to Turkish methods



'THE BISMARCK OF THE BALKANS'

Stepan Nikolov Stambulov (1834-95), the strong-minded Bulgarian minister of Alexander, headed a council of regency upon that prince's abdication. In 1887 he became premier and dominated Balkan politics for eight years.

for the satisfaction of the Turkish government; which continued in its old ways, but with a much smaller Christian population under its rule than of yore. And between the several Balkan states there was no love to lose, while none of them was gratefully conscious of a deep debt to any European power for disinterested services rendered.

France's Colonial Ambitions

BISMARCK'S position as the dominating factor in international politics was unchanged. From France in isolation there could be nothing to fear for a long time to come, and to keep her isolated was no very difficult task. A republic which could set up no administration of tolerably convincing stability could hardly be attracted by or attractive to the iron despotism of Russia. Between her and Great Britain Egypt provided a constant source of friction; and an opportunity occurred for providing another source of

friction between her and Italy, incidentally attracting the latter to the Central powers.

France had effected an amazing economic recovery since the war, but in 1878 it was still uncertain whether monarchism might yet take the place of the republic. The resignation of MacMahon marked the turning point; Bonapartism disappeared with the death of the Prince Imperial in Zululand, in 1879; the legitimism which clung to the house of Bourbon was paralysed in the country by the firmness or obstinacy with which the Bourbon princes, like the exiled Stuarts, clung to their religious and political convictions or prejudices; no glamour attached to the house of Orléans. From that time monarchism was merely a pious opinion, and the continuity of the republic grew continuously more secure.

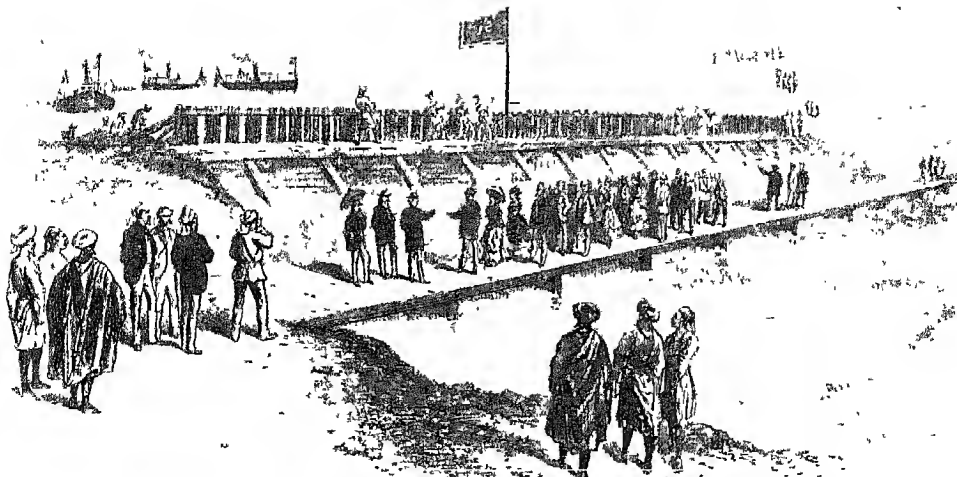
It was at this time that France found herself encouraged to develop her aspirations in Africa by taking possession of Tunis, for which she found a pretext in 1881. England had no objection, as it might make her less irritable on the subject of Egypt. Germany had no objection, having no African interests and a perception that Tunis might bring to France more trouble than profit; for Italy, with her own eyes on Tunis, would certainly regard the annexation of Tunis by France as an unfriendly act towards herself. She did; and her annoyance made it comparatively easy for Bismarck to draw her into a somewhat non-committal alliance in 1882 with Germany and her former *bête noire*, Austria. If trouble with France should arise, Italy would be on Germany's side.

France's acquisition of Tunis did nothing to mitigate her jealousy of British influence in Egypt, which she had never ceased to covet since the days of the first Napoleon. In the successive complications of the Eastern Question, she had kept that objective before her throughout the Bourbon and Orleanist monarchies; while Palmerston, with preservation of the 'integrity of the Turkish Empire' as a fundamental aim of his policy, had been a constant obstacle. But the maintenance of French influence there had remained a constant aim, furthered by the construction of the Suez Canal, a



THE PRINCE IMPERIAL

Eugène Louis Jean Joseph Napoléon (1856-79), the only son of Napoleon III and the Empress Eugénie, was known as the Prince Imperial. Until his death in a British expedition to Zululand, he was the centre of Bonapartist hopes.



AN INTERESTING STAGE IN THE HISTORY OF THE SUEZ CANAL

Disraeli's politic purchase of Suez Canal shares from the impoverished khedive of Egypt, in 1875, ensured British control of this important waterway. In 1869 the future King Edward VII was conducted over the canal's then unfinished works by the French engineer de Lesseps, as seen in this contemporary wood engraving. The royal visitor performed the ceremony of opening the sluices of the dam that admitted Mediterranean waters into the first section of the canal.

French project in which Palmerston had no share, though Disraeli had more than made up for the oversight by his dramatic purchase from Khedive Ismail of the bulk of the company's shares in 1875, virtu-

ally placing control of the canal in the hands of the British government.

At the same time the khedive's extravagance, and his huge debts to British and French financiers, had forced him to



FOUNDER OF THE 'DUAL CONTROL' AND ITS OPPONENT

The extravagance of Ismail Pasha (1830-95), who became khedive of Egypt in 1867, led to his appeal for financial assistance to France and Britain, which occasioned the 'dual control' of his country by these two powers. Under Ismail's feeble successor, Tewfik, the discontent felt by Egyptians with their government and with European interference manifested itself in an agitation nominally headed by Arabi Pasha (right), whose revolt was crushed, and who was himself deported.

Left, photo, Elliott & Fry

place the Egyptian finances in the hands of a dual board of control, British and French, with the inevitable result—illustrated in Indian history by the British assumption of the Divani in Bengal—that the board became in effect, though not in form, largely responsible for the government; a state of things by no means to the liking of the officials, drawn for the most part from other parts of the Turkish empire, who had hitherto battered according to custom upon the khedive's helpless subjects and the revenues, of which only a fraction reached the treasury.

British Occupation of Egypt

It was not difficult, in the circumstances, to raise the cry of 'Egypt for the Egyptians,' or to draw an army colonel, Arabi Pasha, into the rôle of patriot leader and champion of the anti-foreign sentiment. Ismail's successor, Tewfik, found himself powerless; the anti-foreign agitation became a grave danger to the very considerable European population in Alexandria and elsewhere. The Porte (the suzerain) would not and the khedive could not do anything. The French and British governments offered Tewfik their support at the beginning of 1882, and sent naval squadrons; the only effect was to produce riots. A European conference was called to deal judicially with the problem; but the position at Alexandria and the menace to the Europeans there from Arabi's troops were too critical for delay. The British admiral took the responsibility, which the French admiral declined to share, of sending an ultimatum to Arabi and, when it was ignored, of opening a bombardment and occupying Alexandria, while the French retired.

The force at the admiral's disposal was obviously inadequate for the restoration of order and security. With due notification to the sultan, troops were dispatched to Egypt from England and India. Arabi's army was shattered in a brief and decisive campaign, and he himself was deported. But the whole situation had been changed. The khedive's government—anything that could be called a government—could be restored only by the British. In the

public interest the British on their own sole responsibility had taken upon themselves to do the thing that was admittedly necessary but which no one else had been ready or willing to undertake either alone or in conjunction with them; the French had had the opportunity but had deliberately rejected it. The British had therefore done the thing single-handed, and it was recognized that they were entitled to a perfectly free hand in the necessary reconstruction on their own terms.

But just as in India they had repeatedly refrained from annexation or had restricted annexation to the lowest practical limit, so now they did not annex Egypt, though it would have been more than difficult to deny their right to do so. Reconstruction required at the least an army of occupation to maintain order during the process, and effective control of the entire administration. They 'occupied' Egypt as the Austrians occupied Bosnia, on the theory that they would evacuate it as soon as a government had been established which could stand securely upon its own feet. And in the meanwhile the government continued to be the khedive's, the Egyptian government, not the British; though the army of occupation was British, the reorganization of an Egyptian army was in the hands of British officers, and the administration was in the hands of British officials in the service of the khedive. There was no room for French ambitions in Egypt, and though France was thoroughly conscious that she had no one but herself to thank for the fact, that made her none the less resentful.

Unrest in Italy, Spain and Russia

ITALY had attained her unity under Victor Emmanuel, but half the country had not yet been accustomed to the idea that governments exist for some other purpose than the oppression of the people. Economic stability was still distant, and, if she ranked as a great power, it was still only by courtesy, eager though she was to assert herself. The almost simultaneous deaths of Victor Emmanuel and Pius IX did not heal the breach between the crown and the Papacy.

The World Drift to War

Spain on the other hand was entering upon an era of recuperation after her prolonged sufferings. The king, Amadeo of Savoy, who had accepted her crown when it was refused by Leopold of Hohen-zollern, resigned it again in disgust in 1873; but after a year of dictatorship in the guise of a republic she recalled Alfonso XII, the son of the formerly expelled queen Isabella. There was a brief struggle before the old Carlist party was finally broken up; the young king set himself seriously to the task of government; and when he died prematurely in 1885 his widow, Maria Christina, discharged with tact and discretion the duties of regent on behalf of the infant Alfonso XIII, until he reached man's estate.

Russia as we saw lost ground in Europe. Within the tsardom, Alexander II had striven or rather groped after ideals, while lacking the resolution and the insight without which it was impossible to bring them to realization. He had liberated the serfs without restoring to them what they regarded as their own rights in the soil. He had encouraged Western education, but it had fallen upon ground in which it was only the seed of passionate revolt, and government terrorism was faced by the black spectre of Nihilism. The tsar himself was no enemy of reform; but even at the moment when an effort was being made in that direction the world was shocked by his murder at the hands of the nihilists (1882). All thought of reforms vanished, and under the dead tsar's son, Alexander III, the tyranny became if possible more rigid and more merciless than before.

Foiled in the Balkans, Russia as usual became more active in Asia, pushing constantly and in British eyes alarmingly in the direction of India. But the collision, in 1885, between Russian and Afghan troops known as the 'Penjdeh incident,' which threatened to be the beginning of an Anglo-Russian war, actually prepared the way for an adjustment—thanks in no small measure to the hard-headed shrewdness of the Afghan amir Abd er-Rahman—and an agreed delimitation of frontiers in 1887. For Russia was changing her Asiatic objective, aiming at the Farthest East and



A WISE AFGHAN AMIR

Abd er-Rahman (1830-1901), proclaimed amir of Afghanistan by the British in 1880, proved himself a strong ruler. His shrewd handling of the situation at the time of the Penjdeh incident prevented imminent Anglo-Russian hostilities.

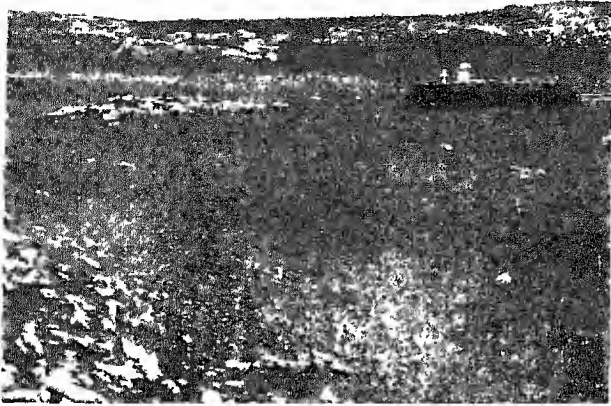
Photo, L.N.A.

the Pacific; as yet no more conscious than the rest of the world that a power had arisen, and was consolidating itself in that quarter, with which she would have to try conclusions before her aims could be accomplished.

Colonial Expansion in Africa

THERE was at this period a general European movement towards expansion. France had turned her eyes once more to the East; if India was unattainable, there were still lands beyond India where a footing might be established; though it was not without many troubles that she acquired from China the protectorate of Annam by the Treaty of Tientsin in 1885. Her activities in Indo-China were probably the real though not the ostensible warrant for the British annexation of Upper Burma in 1887. European interests in the Farthest East were developing. But it was the scramble for Africa that set in most vigorously in the years immediately following the Berlin Congress.

Expansion manifestly could take place only in lands—whether densely or sparsely populated—where the civilization in general and the community organization in particular were on a lower plane than those of Europe. America was already occupied by Europeans; so was most of



SCENE OF A BOER VICTORY OVER THE BRITISH

On the night of February 26, 1881, Sir George Colley, governor of Natal and commander-in-chief of the British forces in South Africa, seized and occupied Majuba Hill. Driven from this position early next morning, the British forces suffered heavy losses, to the great detriment of British prestige, Colley himself being among the fallen.

Photo, E. N. I.

Australasia and the islands of the Pacific. Western Asia was not an open field; northern and central Asia were out of reach except for Russia. In the farthest east of Asia there were perhaps possibilities, but there was the Chinese empire to be reckoned with. But the whole African interior was an almost unknown region, scarcely penetrated except by an occasional adventurous missionary, peopled by negro races whose culture was primitive and barbaric. The coastal districts on the Mediterranean were provinces in which such governments as existed might fairly be classed as barbaric. The Atlantic sea-board was dotted with European 'colonies' which were little more than very unhealthy trading depots. The south was occupied by the British, the Boers and the Portuguese. Farther north, on the east, Zanzibar and Abyssinia, like Morocco on the north-west coast, and to some extent the island of Madagascar, claimed a doubtful recognition as independent states. But the rest of Africa was open to any Europeans who could take effective possession.

The British then, as we have seen, established a 'temporary' protectorate in Egypt, to which other powers could hardly

refuse assent; France established her own protectorate in Tunis, not only with assent but with positive encouragement from Great Britain and Germany, though very much to the annoyance of Italy, who could only hope to find compensation on the north of Abyssinia and ultimately in Tripoli. France without European intervention set up (1885) a protectorate in Madagascar which was later transformed into annexation. But all the European powers, including Germany, who had hitherto felt no call to colonial expansion, had suddenly realized that Africa was the only division of the

earth's surface still open to appropriation, and that the British, with a northern base in Egypt, a southern base in Cape Colony and sundry starting points on the western and eastern coasts, would by mere force of circumstances absorb the interior and leave nothing for anyone else to appropriate unless they made haste to anticipate her.

The precedents of the eighteenth century, when France and Great Britain had fought each other to a finish for America and India on the hypothesis that there was not room there for both, were not promising. In Africa after all there was room for everyone; and so between 1880 and 1890 a series of treaties or compacts was entered upon, partitioning the Dark Continent into protectorates or 'spheres of influence' appropriated to one or another of the European states, though not without leaving occasions for acute controversy in the future.

At the same time events were taking place which were of moment to the future expansion of the British in Africa. First in the south, in 1879, they came into collision with the military power of the Zulus, which led to the annexation of Zululand. Immediately preceding this,

The World Drift to War

they had resumed the control which they had abrogated in 1852 over the Boers in the Transvaal, who without British protection were in danger of being wiped out by the Zulus. Freed from that menace by the Zulu war, the Transvaalers demanded the retrocession of their virtual independence, rose in arms, and at Majuba Hill (1881) cut up the British regiments which had been sent out to restore the British authority, though the British government had already resolved to concede the demand of the Boers. On the hypothesis that the justice of that demand was not affected by Majuba, the government stopped the hostilities and carried out the retrocession, practically claiming to retain control over the foreign relations of the Boers; who, on the other hand, were firmly convinced that they had extorted their rights by force of arms from a government which had neither the power nor the energy to maintain its own claims—whereof the consequences were manifested in the South African War, which broke out before twenty years had passed.

Meanwhile in Egypt trouble was brewing. The effective rule of Egypt had



EMPEROR FREDERICK I

Prince Frederick William succeeded to the German imperial throne as Emperor Frederick I in March, 1888. His tragic death in June of the same year from cancer of the throat crushed the hopes of the Liberal party whose views he shared.

Engraving by D. J. Pound

never extended above the lower cataracts of the Nile, though she had habitually claimed lordship over the Upper Nile and the desert tribes of the Sudan; among whom there arose at this time a 'Mahdi' claiming to be the successor of the Prophet of Islam who was to overthrow the Khalifate and establish the supremacy of the Faith. Before long he was exercising a despotic authority over the Sudanese; the Egyptian garrisons in the Sudan were powerless, and Egypt herself was threatened by his fanatical hordes. The British government had taken up the task of providing Egypt with a healthy government; it was not prepared to take upon itself also the business of restoring the Egyptian authority in the Sudan; the abandonment of which was the only alternative, involving the withdrawal of the garrisons.

It appointed for the execution of that task General Gordon, soldier and mystic, with virtually a free hand, subject to the instruction that withdrawal and nothing more was to be attempted, and the warning that no great military expedition would be sanctioned, though it was known to be Gordon's own conviction that the 'smashing' of the Mahdi was imperative; while he was a man who would certainly



GENERAL GORDON

The heroic endeavour of Charles George Gordon (1833-85), renowned for his almost uncanny influence over half-civilized peoples, to 'smash the Mahdi' in the Sudan ended in tragedy. The expedition to his relief in Khartum was too late.



'DROPPING THE PILOT'

Dissension soon arose between the Emperor William II, who ascended the German imperial throne in 1888, and Bismarck. Sir John Tenniel's well known cartoon affords a poignant illustration of the latter's dismissal on March 20, 1890

By permission of the proprietors of 'Punch'

not allow his own conviction of a sacred duty to be overridden by the expediencies of politicians. Tragedy followed. Gordon, in the Sudan, found himself shut up in Khartum by the Mahdist hordes, and when at last a long-delayed expedition was dispatched up the Nile to rescue him it reached Khartum only to find that the place had been stormed two days before its arrival, and Gordon had fallen in the defence. There was nothing more to be done, and the Sudan was abandoned till the time should be ripe for its conquest after the lapse of thirteen years.

IN 1888 the emperor William I died at the age of ninety; three months later his son Frederick I followed him, and his grandson William II became the German

kaiser. The German Empire had been achieved through the never-failing loyalty of the old man and his great chancellor to each other. What might have befallen if Frederick had not been already a dying man when he succeeded to the imperial crown none can say, for it was notorious that there were many points on which emperor and chancellor did not see eye to eye; but during those months there was no breach between them. On Frederick's death it seemed at first that Bismarck's ascendancy would be unimpaired, but the new kaiser believed implicitly in himself; he had ideas of his own which were not Bismarck's, and in 1890 William 'dropped the pilot' and took the management of affairs into his own hands. The world did not know what to make of Germany's new master and his passion for unexpected activities and startling pronouncements, which were occasionally somewhat nerve-racking; but it was, on the whole, inclined to regard them as temperamental eccentricities which must not be taken too seriously. How far the chancellor's fall had actually changed the European situation was a matter of much uncertainty.

Alliance between France and Russia

ONE thing, however, was clear. Bismarck had striven to the last to placate Russia and prevent any rapprochement between her and France. That a rapprochement was taking place became more apparent every day. In 1891 the French channel fleet visited Kronstadt, where it received an ovation; two years later a Russian squadron paid a return visit to Toulon, where its reception was even more enthusiastic. Alexander III died in 1894, when he was succeeded by the third of the tsar-idealists, Nicholas II; next year an alliance between France and Russia became an accomplished though not a published fact, the existence of which was acknowledged and even emphasised by somewhat ostentatious displays of mutual good will in the two following years. Germany can hardly be reproached if the conviction was implanted, and grew ever stronger, that hostility to her was the bond between

The World Drift to War

the two powers, otherwise so inappropriately yoked together, which lay on her western and eastern marches.

There could be no question about the solidarity of the interests of the two Central powers. If they broke with each other, neither would be secure against attack by one or, more probably, two hostile powers; while they stood together, holding strategically the 'interior lines,' the risk of attacking them would be too great to be undertaken lightly. And at the same time they had no clashing interests, and no material divergences of political sentiment such as those which made a firmly rooted friendship so difficult between a typically despotic and a typically democratic state. By attaching Italy to themselves they had gained an additional security in relation at least to France. On the other hand, concord between Russia and France gave to each security against aggression by the Central powers. An equilibrium was established simply because the issue of an armed conflict would be too doubtful—the more because no one was able to gauge the real efficiency of Russia's strength.

Britain's 'Splendid Isolation'

AT the same time the isolation of Great Britain was complete, nor had she any desire that it should be otherwise. She was in possession or occupation of the greater and better part of so much of the world as had not been occupied by Europeans before the middle of the eighteenth century, a position from which no one could hope to oust her while her fleets commanded the ocean highways; those fleets were an impassable bulwark except where their place was taken by the all but impassable mountains of the Indian frontier, or where her only neighbour was the American republic. She was hardly conscious of a challenge to her commercial and manufacturing supremacy, which she had learnt to regard as a matter of course. So long as she kept her navy up to standard she had nothing to fear from powers whose resources were under the perpetual strain of maintaining huge armies, while she could content herself with one comparatively insignificant in size.

She could see no cause of quarrel with any of her neighbours save Russia, except what she felt to be their rather unreasonable jealousy; she had no sense of hostility to any of them—with the same exception, Russia. Consequently she had no desire for alliances which might prove embarrassing, but if she should incline to one scale or other in the European balances it would fairly certainly not be the Russian scale. Though French and English had fought each other often enough in the past, they had also occasionally fought side by side, and towards France England had no sort of ill will; France might persist in her annoyance about Egypt, but common sense would forbid her to manufacture a *casus belli*; while if at times the British relations with Austria and Prussia had not been over cordial, they had not fought each other for more than a century, nor was there any apparent reason why they should wish to fight each other now. If the other powers chose to quarrel with each other, the less the British Empire allowed itself to be implicated in their differences the better, though it would be always in her interest that peace should be preserved.



NICHOLAS II OF RUSSIA

Nicholas II succeeded his father as tsar of Russia in 1894 and shortly afterwards married Princess Alix of Hesse, this photograph being taken in the same year. He was assassinated in 1918.



THE MARQUESS OF SALISBURY

The British public had great confidence in the conservative and pacific Lord Salisbury (1830-1903) both as premier and foreign secretary. His cession of Heligoland to Germany in 1890, however, was not universally approved.

She was hardly alive, however, to the fact that jealousy was growing in Germany, who had embarked on an active career of trade expansion, was pushing her way into markets which the British had hitherto monopolised, and was very ill satisfied with the bargains struck over the partitions of Africa—though the British expansionists were no less displeased by the 'graceful concessions' of Lord Salisbury's diplomacy. The German commercial community felt more and more that British rivalry and British intrigues were barricading her out of her rightful 'place in the sun.' On the other hand, the kaiser had realized the fundamental fact that 'peaceful penetration' was the only useful weapon that could be employed until there was a German navy which could hold its own against the British navy.

But an equilibrium depending simply on equality of armament between two groups of powers filled with suspicion and mistrust of each other could only mean that each group would strive ceaselessly to raise its own standard of armament above that of the other group; and so the exhausting race went on year by year—touching Great

Britain less than anyone else, because as concerned armies she saw no need to enter the race, and as concerned navies she already held a lead which kept her above immediate competition. None of the powers wanted a conflagration, however, and so long as that was the case it was to the interest of all that the status quo should be maintained at least within Europe.

No one then was disposed to interfere in the troubles of minor states or nationalities. No one was concerned if Norway wanted the separation from Sweden which she achieved, by strictly constitutional methods, at the opening of the twentieth century. The depression of the Poles by Russia might demand sympathy, but certainly not intervention. The absorption of Finland into the Russian system disturbed no one but the Swedes. The subordination of the Slavs within the Austrian Empire to Austrian or Magyar domination made Slavs everywhere look to Slavonic Russia, developing the race hostility between Slav and Teuton; but



ABDUL HAMID, SULTAN OF TURKEY

Considerable diplomatic talent was shown by Abdul Hamid II in his dealings with the European powers, and German influence in Turkey thrived under his encouragement. He was sultan from 1876 until 1909, when he was deposed.

Photo, W. & D. Downey

The World Drift to War

the time was not ripe for a duel—and the astute sultan was very well aware that all the powers would fight shy of active interference with his doings, lest they should thereby be brought into active collision with each other. The inflammability of the Balkan peninsula was the standing menace to that general peace which the 'Concert of Europe' was most anxious to preserve, while that same desire paralysed the Concert itself for drastic action. Incidentally, since Germany had no territorial interests of her own in the Turkish Empire, Abdul Hamid, having nothing to fear from her 'friendship' and possibly much to gain, was ready enough to cultivate it, while the kaiser was thoroughly alive to the advantages that might accrue therefrom.

Friction between the Balkans and Turkey

IN the Balkan storm centre, Serbia was too much torn by domestic troubles to endanger the peace of her neighbours, though a period of reconstruction was promised by the fall of the Obrenovitch dynasty and the accession of a prince of the former rival house of Karageorgevitch in 1903; though the consequent development of pan-Slav doctrines was ominous from the Austrian point of view.

In Bulgaria, Ferdinand watched and waited while Stambulov ruled, till the chance came in 1894 for accepting the minister's resignation—much to the surprise of Stambulov himself, who was assassinated not long afterwards. Ferdinand was far too wary to commit himself to provocative action in any direction, while he was especially careful to cultivate the good will of the Porte on one side and Germany on the other. With a Hohenzollern reigning in Rumania and a Coburg in Bulgaria—both states which declined to regard themselves as Slavonic, and both having very definite grudges against Russia—the gravitation of both towards the Central empires was inevitable.

When definite trouble arose, it was within the Turkish dominions. It appeared in 1894 that there was a revolutionary movement in Armenia which needed repressing. The Turk repressed it, finding himself under the unhappy neces-

sity of massacring some fifty thousand of the population before the European Concert was in tune for intervention, though, as a matter of course, he then accepted the paper scheme of reforms submitted by the powers, which as usual failed to materialise. Next came the revolt of Crete, bent on escaping from the Moslem sovereignty and on joining herself to the Greek kingdom. Greece answered the call of Crete and sent a force to the island. The Concert intervened; when a joint squadron arrived at Canea, bringing peremptory orders that the fighting was to stop, that the Greeks were to withdraw and no more Turkish troops were to be landed, the orders were perforce obeyed. But the Greeks lost their heads and invaded Thessaly, whence they were decisively ejected by the Turkish troops.

To deny the right of the Turks, in the circumstances, to demand rectifications of the Thessaly frontier was impossible; but the powers—without Germany and Austria, who refused to co-operate—required from Turkey autonomy for Crete under their joint supervision, with the second of the Greek princes as governor. In Crete, Greek patriotism centred in the future minister, Venizelos. But with Abdul Hamid German influence was supreme, though a 'Young Turk' party, a Turkish nationalist party, was now coming into being with a programme of its own which was not favourable to the khalif, who in the last twenty years had lost for Islam effective sovereignty in Cyprus, Egypt, Rumelia, Bosnia and finally Crete. Its existence, however, was as yet unsuspected. The accord of Germany and the Porte bore significant fruit in 1902, in the authorisation of a German railway to Basra and Bagdad, which would give the Germans their first foothold in the Middle East. For in the Far East the scramble for penetration bases in China had already begun.

Development and Expansion of Japan

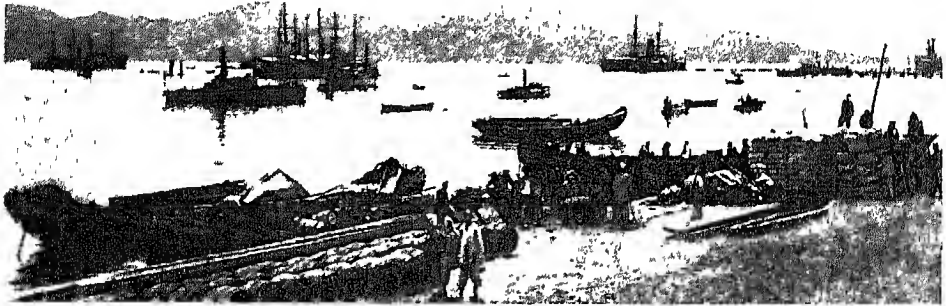
THE nature and characteristics of the Japanese Revolution are the subject of study in Chapter 165. Japan had remodelled herself upon Western lines, somewhat as, long ago, Peter the Great

Chronicle XXXI. 1878-1914

had sought to remodel Russia. But her aim was not to Westernise herself, but to hold her own among the Westerns by learning and adapting scientifically to her own use all that a critical study of Western methods could teach her. She reorganized her government, her army, her navy and her policy. She turned her eyes to the continent of Asia, as she had done long ago in the days of Hideyoshi. Organization, not aggression, was her immediate object; but the king of Korea forced war upon her, rather as Burmese monarchs had forced war upon the British in India; and the position which she then took up in Korea displeased China, who claimed there a

Japan certain, unless Japan should give way to Russia. Germany, whatever her ultimate aim may have been, ranged herself along with Russia and France, and England could not encourage Japan to defy that combination. Japan submitted with dignity, and bided her time.

China, however, did not love the 'foreign devils.' A year later (1897) two German missionaries were murdered. Germany demanded compensation, and got it in Kiao-chau. France and Russia demanded equivalents for the concessions to Germany, and got them; on the same principle, Weihaiwei was leased to Great Britain. The concessions intensified the popular Chinese hostility to the foreigners,



FORMER BRITISH NAVAL AND COALING STATION AT WEIHAIWEI, CHINA

The British leased Weihaiwei, a Chinese naval station on the north-east coast of the Shantung peninsula, from China in 1898, and retained possession of it until, at the Washington Conference of 1921, it was agreed that it should be restored to China. The territory consists of all the islands in Weihaiwei bay, the island of Liukung and a strip, ten miles wide, along the coast, in all 285 square miles.

Photo, B. R. Muddell

shadowy suzerainty. In 1894 China proposed to submerge her, with the result that after a few months' fighting China was very thoroughly ejected from Korea, and Japan proposed to reap the natural fruits of her victory by the treaty of Shimonoseki.

Great Britain was the only European power which had recognized the status of Japan as a civilized, not a merely semi-civilized, nation. Europe intervened and forbade her to reap the fruits, and the powers were duly rewarded by China for their intervention; Russia in concessions for the railway she was carrying across Siberia to Vladivostok, France in the neighbourhood of Tonkin, Germany at Tientsin—arrangements which made an ultimate collision between Russia and

and to the emperor Kuang Hsi, who was deposed next year by the dowager-empress, Tzu Hsi, the incarnation of the anti-foreign reaction; while North China was seething with the 'Boxer' rebellion.

All the foreign powers had 'legations' at Peking, and in 1900 came the news that the legations were either in the hands of the Peking mob or were on the point of falling into them. All the powers, Japan and the United States included, took joint action, and dispatched to China contingents which marched on Peking, where they found that the legations had, after all, held out successfully. The Chinese government submitted, with professions that it had done its best but had been unable to control the rebels. The allies refrained from demanding

The World Drift to War

further concessions, though insisting on effective guarantees for security in the future; and in the following years it appeared that the progressive or Westernising element predominated in the Chinese government, though Tzu Hsi continued to reign.

The conduct of Japan throughout had more than established her right to recognition on an equal footing with the Western powers, which was sealed by a treaty of alliance with Great Britain in 1902. The treaty meant that, if and when Russia and Japan should come into armed collision, Great Britain would not join Japan against Russia by herself, but would intervene if anyone else joined Russia against Japan.

The collision was not long postponed. Russia wanted both Manchuria, where she had established herself, and Korea, where Japan had established herself. Japan proposed mutual accommodations; Russia



KUROPATKIN AT MUKDEN

In March, 1905, after much strenuous fighting, the Japanese under Oyama defeated the Russians at Mukden, in China. Kuropatkin, the Russian commander, is here seen in Mukden imperial cemetery with the Chinese authorities.



JAPAN'S GREAT ADMIRAL

The destruction of the Russian fleet at Port Arthur in February, 1904, was one of the most celebrated exploits performed by the Japanese naval commander-in-chief, Heihachiro Togo, here seen heading a procession in Vieno Park, Tokyo.

Photo, E.N.A.

claimed that the compromises should not be reciprocal. Japan proposed control for Russia in Manchuria and for Japan in Korea. Russia returned no answer, and in February, 1904, Japan declared war. She had only the resources of her own islands to draw upon, while Russia's resources in men at least were incalculably greater. But she could bring her whole force to bear at once; of Russia's naval squadrons one was ice-bound at Vladivostok, while she could reinforce her armies in Manchuria only by way of the single-line trans-Siberian railway, which was still far short of completion.

On February 9 Japan broke up the second Russian fleet from Port Arthur,



PART OF THE SUNKEN RUSSIAN FLEET IN PORT ARTHUR HARBOUR BEFORE THE SURRENDER TO THE JAPANESE. Leased by Russia from China in 1895, the fortified seaport of Port Arthur, in Manchuria, became the chief base for the Russian eastern fleet. Its harbour was blockaded by the Japanese from the beginning of the Russo-Japanese war, and after a siege of eleven months General Stoessel surrendered to the besiegers on January 1, 1905. This view of the harbour shows the submerged Russian battleship, Ketyizan, sunk by gunfire on December 8.

From a photograph by General I. U. Stoessel

whither she drove it back and which she proceeded to blockade. A little later she was able to invest it on the land side also, while the Russian commander Kuropatkin was endeavouring not to overwhelm but to hold back her main army on the Yalu till he should be adequately reinforced. Port Arthur held out stubbornly, and in spite of heavy fighting the Japanese commander could make no impression until a desperate effort was put forth at the end of the year in order to anticipate the expected arrival of a new Russian fleet, the Port Arthur squadron having sallied forth in August, only to be annihilated by Admiral Togo.

Progress of the Russo-Japanese War

KUROPATKIN had been pushed back from the Yalu in May; he was again pushed back upon Mukden in August, as the result of the nine days' battle of Liaoyang, in which the Japanese actually suffered more heavily than the Russians. Being at last reinforced in October, he resumed the offensive, but was again compelled to retire upon Mukden after a fifteen days' battle on the Sha-ho, which left both armies so exhausted that neither could take the offensive. Port Arthur, however, was so hard pressed by Nogi's final onslaught that it was forced to surrender on January 1, 1905.

Nogi was thus released to reinforce the main army, after which another prolonged and exhausting struggle drove Kuropatkin from Mukden at the end of February back to the lines which he was able to hold for the remainder of the war, since there was no more heavy fighting on land. The sea, however, provided one more episode. Rhozhdestvenski's fleet arrived in May, only to be obliterated by Togo in the battle of Tsushima. Japan could not hope to add to her gains; Russia could not hope to recover ground; both had suffered enormous losses, and both were thoroughly exhausted. The war was ended by the treaty of Portsmouth, U.S.A., in August, 1905; Russia evacuating Manchuria, while Japan retained Korea with the Liao-tung peninsula.

The Russo-Japanese war had upon Russia's position among the powers the

The World Drift to War

same sort of effect that the defeat of the Armada had upon Spain at the end of the sixteenth century. She ceased to be a bogey credited with incalculable power. Her navy had shown itself almost grotesquely inefficient, and her armies, without being outnumbered, had left the Japanese masters of the field after each of the prolonged and stubbornly contested engagements. To strike effectively at Russia would always be as desperately difficult as Napoleon had found it, but holding her at bay would present no insuperable difficulties.

As concerned Europe, no change in the isolation of Great Britain had taken place when the twentieth century opened. It was a moment when every country on the Continent was sympathising not with her but with her stubborn antagonists in the South African War, under the curious conviction that all the dominions of the British Empire were craving to be free from a bondage which had no existence. As late as the middle of the nineteenth century it had been the commonly accepted doctrine that colonies break away from the mother country as soon as their own security is not endangered by doing so; the cleavage of the British Empire in the



GENERAL COUNT NOGI

Count Maresuke Nogi (1849-1912), the victorious Japanese commander at Port Arthur in the Russo-Japanese War, showed his devotion to an old tradition of his country by committing harakiri on the death of his emperor Mutsuhito

Photo, Strass



A DAMP JOURNEY: JAPANESE INFANTRY ADVANCING ON LIAO-YANG

Furious fighting took place in the nine days' battle of Liao-yang, whence the Japanese drove the Russians in 1904. Although the result of the battle was favourable to the Japanese, they were not successful in cutting off the retreat of the Russians, under their commander, Kuropatkin, on Mukden, and the value of the victory was modified by the terrible losses suffered by the Japanese troops,

Photo, F. A. MacKenzie

last quarter of the eighteenth century being regarded as a typical instance of a general law

In actual fact, for fifty years past Great Britain had consistently fostered autonomy in her colonies, which were aware of no bondage except when the exigencies of international relations made the imperial government actually or apparently neglectful of the interests of particular colonies. Regarding themselves and being regarded as partners in the Empire, not subordinates, they had no desire for separation, however jealous they might be in regard to their own rights and privileges; and the sense of imperial solidarity was growing, not diminishing. South Africa was on a different footing from the rest, for the simple reason that the Dutch element



THE PORTSMOUTH PEACEMAKERS

President Roosevelt stands in the centre of this group of statesmen who arranged the Treaty of Portsmouth (U.S.A.), which ended the Russo-Japanese war in 1905, by excluding Russia from Manchuria and giving Korea to Japan. On his right are Witte and Rosen; on his left, Komura and Takahira

Photo, Underwood and Underwood



KITCHENER OF KHARTUM

In 1892 Sir Herbert Kitchener (1850-1916) was appointed Sirdar or commander-in-chief of the Egyptian army. He avenged Gordon's death by his crushing victory at Omdurman in 1898, and his capture of Khartum.

there declined to regard itself as British, looked upon the British as interlopers, and resented the British claim to sovereignty in territories which the Dutch, who had been there long before them, regarded as being rightfully their own. And that sentiment among the Boers had been intensified by the retrocession of the Transvaal's independence in 1881.

When this antagonism issued in the South African War in 1899, the popularity of Great Britain in Europe had not been increasing. Her prospective evacuation of Egypt seemed to grow more remote; it could not come till the Egyptians could be trusted to govern themselves, and she was not teaching them the art of self-government. She was teaching them how the thing ought to be done; giving them stable rule, developing their resources, bringing to the fellaheen an unprecedented prosperity; but the men who were doing it all, holding all the responsible posts, were not Egyptians but Britons—after the Indian precedent, and for the same reasons.

The World Drift to War

In 1896 she made the first open move towards the reconquest of the Sudan by pushing the Egyptian frontier defences up to Dongola. The business was done in the single campaign of 1898. The fanatical hordes of the Khalifa, the Mahdi's successor, were completely shattered at the battle of Omdurman. The Sudan became what it had been before in theory, but never in fact, a province of Egypt, and virtually a British protectorate. But the concentration of the Khalifa's forces against the British advance had enabled a small expeditionary party from the French Congo to reach Fashoda unharmed and hoist the French flag there; and French susceptibilities were painfully irritated when Sir Herbert Kitchener, the conqueror of the Khalifa, declined to recognize the validity of the French occupation. The French government acknowledged the British claim, but French sentiment cherished yet another grievance against what it regarded as British aggression.

Two years after the reconquest of the Sudan, the antagonism of the Dutch to the British in South Africa issued in the outbreak of the South African War. The antecedents of the quarrel, as well as its repercussions in the British Empire, are analysed in Chapter 172. In the first months the British troops met with a series of reverses, but by the following midsummer they were in occupation of the two capitals, Bloemfontein and Pretoria. In September the annexation of the Boer states was proclaimed. Nevertheless they refused to submit, maintaining a persistent guerilla warfare until so many of them had been rounded up that the remnant could no longer keep the field; and in May, 1902, the peace of Vereeniging terminated the war.

The republics were annexed, to be administered temporarily as 'crown colonies,' but instead of exacting indemnities the victors provided large sums for the reinstatement of the farms which had suffered in the war.

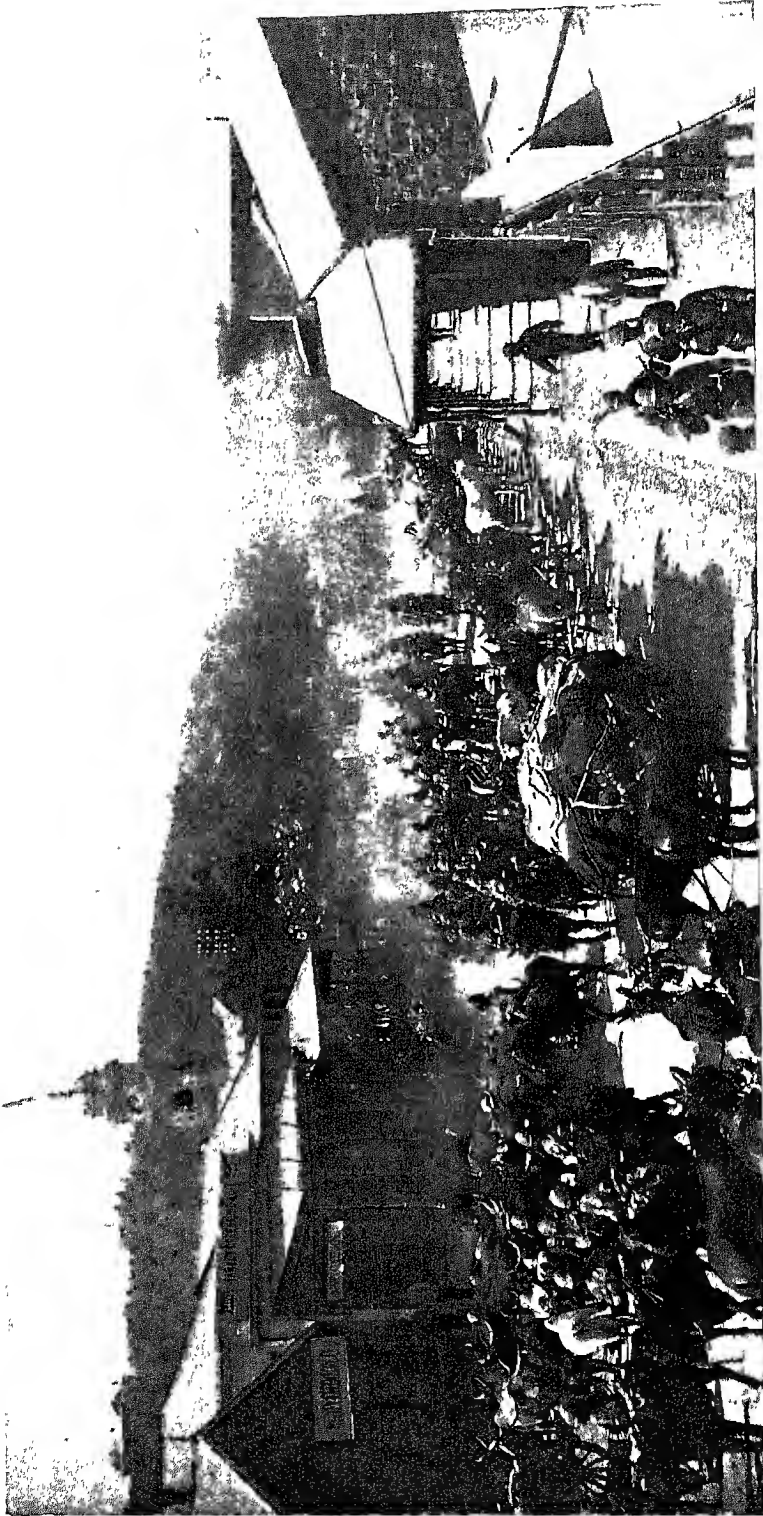
All told, the casualties—mainly incurred not in the field but from enteric—in the two and a half years' fighting were to be repeatedly outnumbered in a single week, sometimes in a single day, in the Great War, of which it was in no sense a forerunner. There had certainly been on the Continent a strong inclination to intervene, but though the Kaiser's attitude in the preceding years had caused some resentment in England, during the war his influence was certainly exerted to discourage intervention. It may be that he realized the practical futility of attempting, as matters stood, to challenge the British fleet; for it was while the war was in progress that he developed an unprecedented naval programme for



TOMB OF THE MAHDI AFTER BRITISH BOMBARDMENT

At Omdurman, chosen by the fanatical Mahdi as his capital in place of Khartum in 1885, this gigantic tomb was built upon his death in the same year. It was constructed by order of the Khalifa, the Mahdi's successor. After Kitchener's capture of Omdurman in 1898 the British destroyed the tomb, and only its ruins now remain.

Photo, Captain E. A. Stanton



BRITISH TROOPS RETURN TO LADYSMITH AFTER THE DISASTER OF NICHOLSON'S NEK

In the early stages of the South African War of 1899-1902, the superior artillery of the Boers forced Sir George White's troops to retreat on Ladysmith from the advance position which they held at Glencoe near Dundee. Battles were fought on the way at Talana Hill, Elandslaagte and Nicholson's Nek, where a stampede of mules carrying ammunition and guns rendered the British artillery useless. The troops in action being compelled to surrender on October 30 1899, Sir George White withdrew the main body, whose entry into Ladysmith, thereafter invested for four months, is the subject of this photograph

Photo, Horace W. Nicholls

The World Drift to War

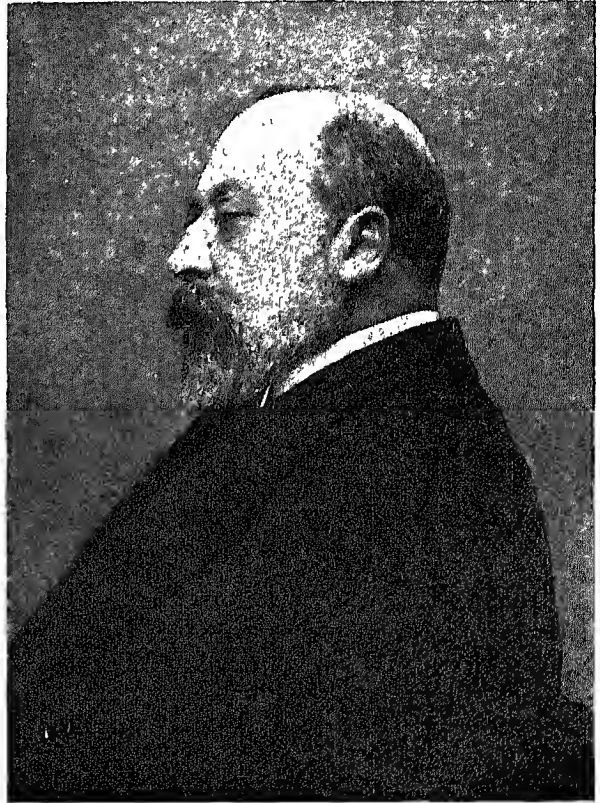
Germany which was difficult to dissociate from the idea of rivalry with the leading maritime power.

THE South African War had not long been ended when new factors began to influence European relations. In Great Britain, where for half a century free trade had been the accepted theory and practice on all hands, a new propaganda was vigorously pushed and in some quarters enthusiastically adopted, of which the economic merits or demerits cannot here be discussed (see Chap. 168); but it had a political effect which could hardly have been anticipated; it was interpreted in Germany as being malevolently directed against German commerce and German prosperity. That conception was unaffected by the defeat of the tariff reformers at the ensuing general election of 1906, and the conviction was thoroughly established in the popular mind that the British were saturated with jealousy of her commercial progress.

It befell, moreover, that at the moment when the propaganda was in full swing Great Britain and France discovered that their outstanding differences were capable of reasonable adjustment and that living on terms of mutual good will was much more satisfactory than the perpetuation of needless friction. The long reign of Queen Victoria had just ended; the new king, Edward VII, had the gift of popularity, and a visit to France facilitated the development of the new spirit of friendliness. The position of the monarch in England is not readily grasped in other countries, and it was not difficult to imagine that a Machiavellian diplomacy was at work. Coupled with the supposed anti-German tariff agitation, the new accord between Great Britain and

France was doubly ominous and the belief in England's sinister designs gained ground.

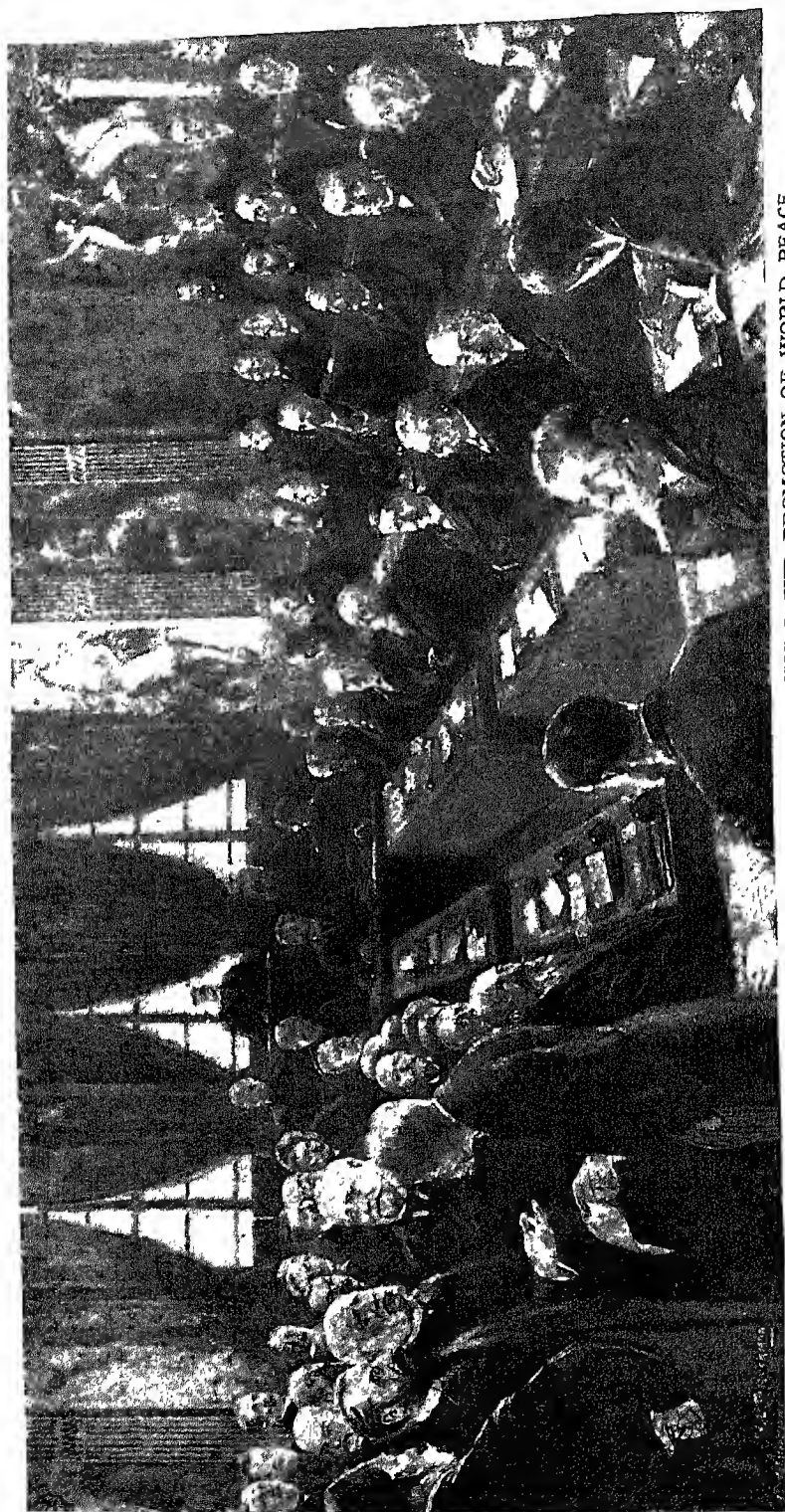
Nor was this all. France had already established friendly relations with Russia, and the accommodation of interests between France and Great Britain was soon followed by a similar accommodation between Great Britain and Russia, made possible as it had never been before by the effects upon Russia of the disastrous Japanese war. It had been a fundamental part of Bismarck's policy to keep those three powers at arm's length from each other. There had been plenty of motives holding them apart; there could be only one for their reconciliation—their common desire for the destruction of Germany. The development of this idea was at least a fundamental factor in the complicated



KING EDWARD VII IN 1910

Unfailing industry and an acute understanding of men characterised Edward VII (1841-1910), who succeeded Queen Victoria on the British throne in 1901. Throughout his reign he exerted his very great diplomatic gifts to maintain that world peace which was shattered so soon after his death.

Photo, E. H. Mills



AN INTERNATIONAL CONFERENCE AT THE HAGUE DISCUSSING THE PROMOTION OF WORLD PEACE
At the suggestion of Nicholas II, tsar of Russia and a man with humanitarian ideals, the first international peace conference was convoked at The Hague in 1899. It was attended by representatives from European countries and the United States. The conference achieved the establishment of an international court known as the Hague Tribunal, but was unsuccessful in its endeavours to reach an agreement on the question of disarmament. The assembly, which held its meetings at the Huis ten Bosch (House in the Wood), is shown in a drawing from sketches by an artist who was present.

The World Drift to War

story of the ensuing years, and its catastrophic climax in August, 1914.

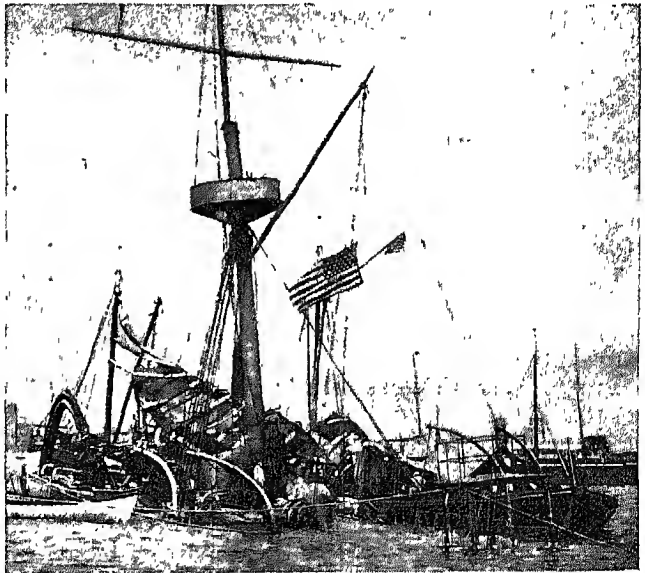
It is curious to observe that the most idealistic if not the most successful efforts to design an organ for the preservation of the world's peace have emanated from Russian tsars, Alexander I and Nicholas II. Long ago, the first of these two dreamers had designed the Holy Alliance of Christian Princes, which under Metternich's manipulation was converted—so far as it operated at all—into an instrument for the suppression of popular liberties. But he had also dreamed the dream of Nicholas, the dream which held in it the germ of the League of Nations.

In the last thirty years of the nineteenth century international disputes had with increasing frequency been referred for decision to a neutral arbitrator, Great Britain and the United States having practically led the way by referring their own dispute over the Alabama claim to a neutral court of arbitration. The same course had been followed by the same nations in relation to Alaska, to Vancouver and to Venezuela (though in the last case the United States arbitrated in a dispute between Great Britain and Venezuela). Similarly the Penjdeh incident had been referred to arbitration.

In 1898 Nicholas invited the powers to send delegates to a conference to be held at The Hague to discuss ways and means for the reduction of armaments by consent, the common adoption of what may be called humanitarian regulations in warfare, and the establishment of a permanent court of international arbitration to which nations might, if so minded, refer their disputes. As a result the Hague Tribunal was actually set up. No agreements could be reached as to reduction of armaments,

because no scheme was in the German view compatible with Germany's security. Regulations were generally though not universally accepted later for the humanising of warfare which were loyally observed by the belligerents both in the South African and the Russo-Japanese wars, but in them there was the grave defect that no sanction existed for their enforcement if any belligerent chose to ignore them; just as it was open to any nation to refuse the appeal to arbitration.

Here, however, we must revert to the progress of events in the western hemisphere. The South American states in general had at last attained a stability which was more than a temporary equilibrium with intervals of revolution. Brazil had turned itself into a republic, a change which had been carried through without violence and accepted with cheerfulness by the deposed emperor, Pedro II. In Mexico Diaz still ruled with a masterful hand. Great Britain had a boundary dispute with Venezuela in 1895, and when the United States threatened to intervene satisfied them by submitting



SALVAGE MEN AT WORK ON THE MAINE

The short war which took place in 1898 between Spain and America resulted from the latter's belief that the former was responsible for blowing up the American warship *Maine* in Havana harbour. The men employed in the salvage boats shown in this photograph found it an extremely difficult task to work upon the shattered vessel.



CHAMPION OF THE MOSLEM

A cartoon by Bernard Partridge which appeared in *Punch* in May, 1905, represents Kaiser William II theatrically posed in Moslem robes, thus satirising his attitude as the friend and protector of the Moslem peoples.

By permission of the proprietors of 'Punch'

the British case to investigation by an American commission, which confirmed the British claims on every point; a diplomatic concession which went far towards setting the relations between the two great English-speaking nations on a more harmonious footing.

The improved sentiment was confirmed by a quarrel between the United States and Spain—the first armed collision between the western republic and a European state since the Anglo-American war of 1812-14. The island of Cuba was under the Spanish crown, and Spaniards governed or misgoverned it, though only a fraction of the population was Spanish. The Americans had considerable commercial interests in Cuba, where trade and production were brought almost to a standstill by repeated insurrections and attempts to suppress them by drastic but very unsuccessful methods. Should the United States intervene—by the same

warrant that the Concert periodically claimed to intervene in Turkey?

American public opinion was divided as to the expediency of going beyond vigorous protest; non-intervention seemed to have definitely carried the day in January, 1898; and then in February the American warship *Maine*, lying in the harbour of Havana, was blown up. The Spanish government inquired, and satisfied itself that the thing was a pure accident in which no Spaniard was concerned; the American public was entirely convinced to the contrary.

The Spanish-American War

ON April 22 war was declared. On August 12 peace was signed. At the outset an American squadron annihilated the Spanish squadron in the Philippines, where the Filipinos were in revolt. The Spanish West India squadron was annihilated in July a fortnight before the capture of Santiago. Porto Rico was practically, though not completely, conquered, and Manila was on the eve of surrender when the peace terms were signed—it fell the next day, the news of the peace arriving later. Any disposition on the part of European powers to intervene was effectually damped by the certainty that such action would bring the British fleet into the picture.

The United States annexed Porto Rico and the Philippines—where, however, the Filipinos, who had risen against the Spaniards for their own independence, maintained a prolonged resistance to an equally alien if more enlightened domination. Cuba was made an independent republic, and, failing in the task of self-government, lost its independence a few years later. Europe and America were already in contact on the east of Asia. To be involved in the political complications of the Old World was still the last thing that America desired; whether she would be able to preserve her isolation was already becoming doubtful.

A question was soon to arise in regard to which she could not wholly maintain her aloofness.

Great Britain and France reached their mutual understanding, their 'entente,' in

The World Drift to War

1904. Both powers had interests in Morocco, both had interests in Egypt; each recognized in effect that the other should have a free hand in the country where her interests were paramount. Their agreement, which was not an alliance, was laid before the Triple Alliance, and no objections to it were raised. But the kaiser had for some time been posing as the friend of Moslem peoples in general—both Russia and Great Britain had a vast number of Mahomedan subjects. In 1905 it became apparent to Germany that the interests of the sultan of Morocco as well as those of Germany in Morocco required protection from France's peaceful penetration. Incidentally, Russia was having a bad time in her struggle with Japan, and France could not count upon effective support from that quarter. Unless Great Britain supported her she would have to give way.

When it became apparent that Great Britain would stand loyal, Germany proposed that the question should be dealt with by a conference. The proposal was

accepted, though it involved the resignation of the French foreign minister, Delcassé. The Conference of Algeciras was held in 1906, all the powers, including the United States, participating. Germany's demands were supported by Austria alone. It appeared, however, that she was satisfied with the result, while no one suggested that she had met with a rebuff, though for practical purposes the position of the French in Morocco was confirmed.

The conference was preluded by the sanctioning in Germany of a huge programme of naval construction; on the other hand, only a year later, the entente between Great Britain and France was supplemented by the entente between Great Britain and Russia, already the ally of France; while at the conference Italy had rather significantly affirmed the identity of her interests with those of England. It was not clear how far Italy regarded herself as committed to support the policy of her imperial allies.

Thus the grouping of the powers and their attitudes towards each other had



REPRESENTATIVES OF THE POWERS MEET AT THE CONFERENCE OF ALGECIRAS

Germany's objection to French action in Morocco secured the convocation of an international conference at Algeciras to discuss the regulation of Moroccan affairs. Lasting from January 16 to April 7, 1906, the conference, under the presidency of Spain, resulted in an agreement being signed that accorded France her privileged position in the country and provided for the sultan of Morocco's acceptance of France's proposed administrative reforms.

Photo, Topical Press Agency



KING GEORGE V

Born June 3, 1865, King George V succeeded to the throne of Great Britain, May 6, 1910, and was crowned June 22, 1911. This portrait of his Majesty as admiral of the Fleet was taken shortly before his coronation.

Photo, Thomson & Co.

changed materially in the four years 1903-7. At the beginning (as also at the end) Germany and Austria were balanced against France and Russia; while the security of the central alliance against Franco-Russian aggression was guaranteed by the actual adherence of Italy and by the constant friction between the Dual Alliance and Great Britain. At the end Russian prestige and self-confidence had suffered a shattering blow, in itself a sufficient guarantee against aggressive action on her part; but the friction with Great Britain had passed, while between Great Britain and Germany friction had undoubtedly set in. The expectation, little short of certainty, that the maritime power would operate against Franco-Russian aggression had given place to the still more confident expectation that it

would operate against Teutonic aggression, while little but neutrality could be looked for from Italy if the Central powers should be the aggressors. That was the lesson of the Algeciras episode

If, then, each group suspected the other of aggressive intent, the one security against a general conflagration was the consciousness on both sides of the doubtfulness of the issue; whereof the corollary was that one side at least was resolved to ensue beforehand that the issue should not be doubtful. At the same time, there were in the Balkans uncontrollable factors which might at any moment upset the calculations of the most acute statesmen.

Declaration of Bulgarian Independence

EUROPE, then, in 1908 was staging for a new drama, in which the first act was unexpectedly opened by the Young Turks. Their organization had secured the support of the army at Salonica; in July they suddenly demanded the long-promised constitution which had never materialised. The sultan promptly acceded. The powers hopefully withdrew their supervisors from Macedonia, to give the reformers free play. Consequently, in October, Ferdinand of Bulgaria judged that his time had come; he proclaimed the complete independence of Bulgaria, and assumed the ancient title of tsar. Two days later Austria announced the annexation of her protectorate in Bosnia, in defiance of the undertakings under which the protectorate had been established. This was very definitely the concern of Russia. But beside Austria, in the kaiser's significant phrase, stood Germany 'in shining armour'; after brief hesitation, Russia acquiesced.

If the Central powers had been checked at Algeciras, they recovered now more than they had lost then. But the price was the intensification of Slavonic hostility to the German-Magyar domination over the Slavs in the Austrian empire. It was generally believed that the Austrian heir-presumptive favoured a constitutional reconstruction which would have placed the three races on an equal footing; but the ascendancy party was too strong to allow such a solution to be attempted; the racial antipathy was fostered by

The World Drift to War

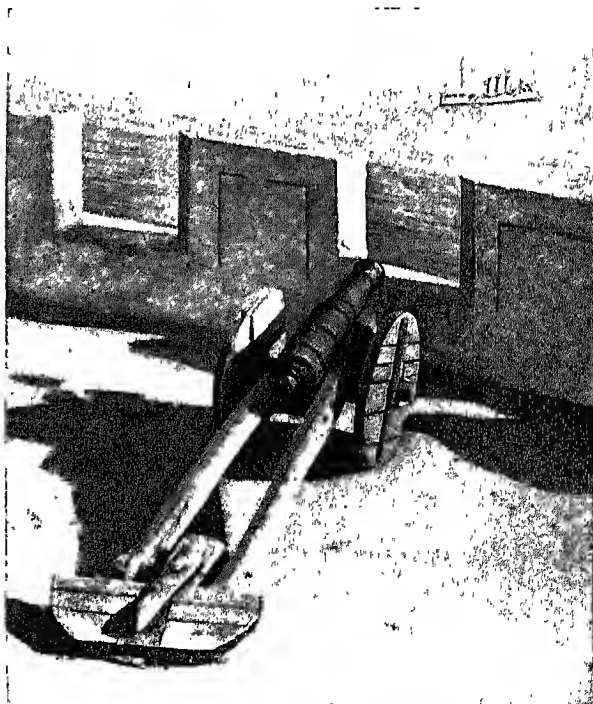
pan-Slavism within and without the Empire, and the fruit thereof was bitter.

For two years there was no further move. Each of the Entente powers had its own domestic troubles. England was in the thick of a prolonged constitutional crisis, in the course of which Edward VII died, and was succeeded by George V; conflict raged round the powers of the House of Lords, arising from the unexpected exercise of their technical right to reject the financial proposals of the Liberal government, which were carried in the Commons by the support of the Irish parliamentary party. The strife was marked by exceptional bitterness, which increased in virulence when, after two general elections within twelve months, which proved the parties within Great Britain to be of all but equal strength, the Irish group obviously held the scale; and the Liberals held that their pledge in 1905 to suspend their avowed Home Rule policy was no longer valid.

At the same time one section of the British press was crying aloud that the British navy was no match for the German navy, while another section was proclaiming with equal fervour that expenditure on naval construction was blatant folly. Also in India (see Chap. 167) the Morley-Minto scheme was introduced, admitting Indians to the enlarged provincial councils, exciting lively opposition among British officials and residents in India; while it was accompanied by a highly seditious agitation in the vernacular press, which was treated by the Indian government with what was zealously denounced as pusillanimous leniency or intolerable tyranny according to the predilections of the critic.

Between factions at home and Indian unrest, it did not appear that any formidable intervention in European

affairs on England's part was to be looked for, whatever her commitments to the other Entente powers might be. Russia's weakness had been manifested by the Bosnian affair. In 1911 Germany made the real testing move. France's paramount interest in Morocco had been recognized at Algeiras and later by separate agreements both with Spain and with Germany. But the sultan of Morocco was totally incapable of controlling his turbulent subjects; anarchy in Morocco had its repercussions upon the tribesmen of Algeria; and in the spring of that year France marched troops to the capital for the defence of the sultan and the restoration of order. On the assumption that this was merely a preliminary to the partition of Morocco between France and Spain, Germany dispatched the corvette Panther to Agadir (July), an unmistakable threat of war.



GERMAN CRUISER AT AGADIR

The dispatch of the German gunboat Panther to Agadir, Morocco, in 1911 was a munatory gesture that came near to evoking war. The Panther was shortly replaced by the German cruiser Berlin, which this photograph from a contemporary journal shows at anchor beneath the walls of the old fortress.

Photo. André Morise

Chronicle XXXI. 1878-1914

It appeared, however, very shortly that this was by no means what Germany intended. In the interval the minister in England, Lloyd George, who was at that time credited with being the most zealous of pacifists, made a speech which in the view of pacifists was almost truculent. Thereupon the Agadir incident was explained away. Germany was only anxious lest her commercial interests in Morocco should be prejudiced by the French domination, for which fears a portion of the French Congo territory would be adequate compensation. The agreement was duly signed in November, and harmony was officially restored.

MEANWHILE, however, war had broken out in another quarter—war with which neither the Central powers nor the Entente could claim to be directly concerned. When France occupied Tunis, Italy had been in some degree placated by the recognition of her own paramount

interests in Tripoli. This, however, did not prevent peaceful penetration by German commerce and the development of German influence, which threatened to supersede that of Italy, which could only be saved by the declaration of a formal protectorate. The Young Turks, moreover, were doing their best to undermine all infidel influences. Italy demanded from the Porte, the nominal suzerain of Tripoli, the recognition of her own protectorate; acquiescence was not immediately following, and she declared war on Turkey (September, 1911).

Twelve months of desultory maritime warfare followed. Italy occupied the Tripolitan coast towns, and seized islands in the Aegean whereby she annoyed the Greeks, in whose eyes Aegean islands were 'Hellas irredenta.' Austria would not allow her to seize territory on the Balkan mainland, the war was expensive and unprofitable, and in October, 1912, peace was made which left her in possession of

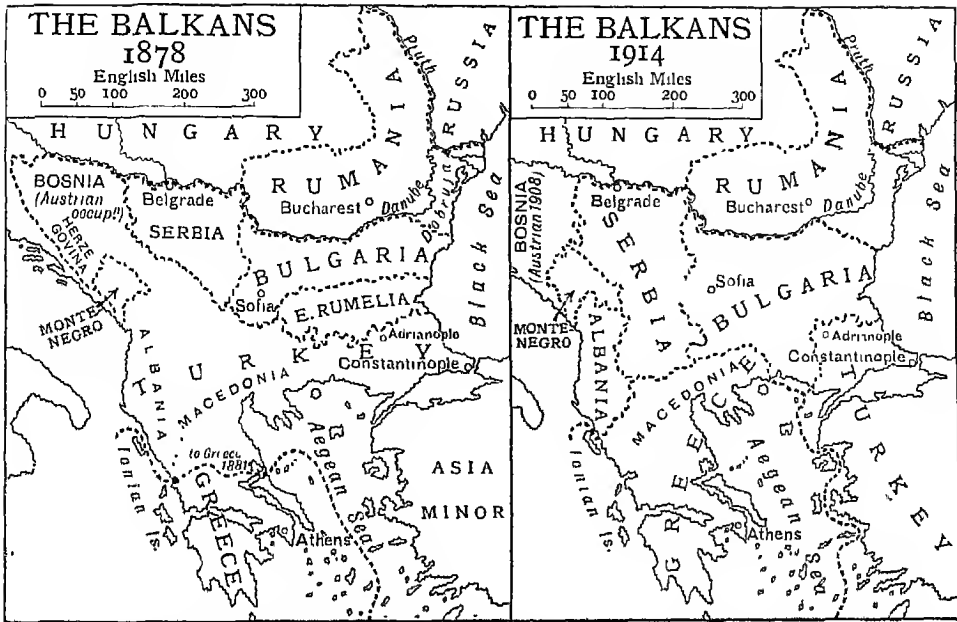


A MOMENTOUS OCCASION IN THE BRITISH HOUSE OF COMMONS

General uneasiness was caused throughout Europe by Germany's action in the matter of the Agadir incident. On November 27, 1911, Sir Edward Grey, who was foreign secretary at the time, made a speech which demonstrated that the pacifist intentions of the government must not be misinterpreted as indicating invertebracy in regard to matters of principle. Occupants of the front bench, from left to right, are Winston Churchill, Lloyd George, Sir Edward Grey, H. H. Asquith and Sydney Buxton.

Drawing by Cyrus Cuneo in 'Illustrated London News'

The World Drift to War



TERRITORIAL CHANGES EFFECTED IN THE BALKANS BETWEEN 1878 AND 1914

The map on the left shows the distribution of the various Balkan States after the San Stefano treaty of 1878, when the independence of Rumania, Serbia and Montenegro was recognized and an autonomous Bulgaria, tributary to Turkey, was established. The map on the right gives the reconstruction after the Balkan Wars of 1912-13, wherein Greece received Macedonia, Albania became independent, Serbia was enlarged and part of Thrace went to Bulgaria, who ceded much of Dobruja to Rumania.

Tripoli and her captures in the Aegean, while the doubtful bonds which held her to the Triple Alliance had been loosened.

ALMOST at the moment when Turkey and Italy were signing the peace, four Balkan states were declaring war on Turkey, where the Young Turks had thoroughly established their ascendancy, exiled Abdul Hamid and set in his place his feeble-minded brother Mohammed V, but had by no means dissolved the amity with Germany. Their rule in Macedonia was no more to the liking of the independent Balkan states than that of Abdul Hamid. The Cretan leader, Venizelos, had now become the trusted minister of the king of the Hellenes. Mainly through his diplomacy, Greece, Bulgaria, Serbia and Montenegro reconciled their differences and united in the Balkan League with a view to the liberation and absorption of Macedonia upon agreed lines, as an alternative to its erection into an independent state; the various negotiations between state and state having been conducted separately without any of the

powers being privy thereto. This point was reached before midsummer in 1912.

At that moment the Albanians, whom no one, Mahomedan or Christian, had ever been able to rule except by sheer force of a dominating personality like Skanderbeg, revolted against the Turkish governors, whose troops mutinied and either joined the rebels or broke before them, and the Albanians began to invade Macedonia. At Constantinople the Young Turks, who were held responsible, were turned out of office. In September the new League appealed to the powers to intervene; the powers remonstrated, but forbade the League to move; but by the middle of October war had been declared between Turkey and all the states of the League.

There followed, before the Concert could recover from its astonishment, an amazing débâcle. The old Turkish army had been broken up, and a new one was in course of organization under German officers—but it was not yet organized. Each of the League states had its allotted task. The Greek fleet swept the seas; in the western area the Serbs routed the

Chronicle XXXI. 1878-1914

Turks in one battle after another; in the eastern the Bulgars were threatening Constantinople and investing Adrianople. Before the end of November the Greeks only just anticipated the Bulgars in capturing and occupying Salonica. Then the powers stepped in; there was a brief armistice; a conference in London was apparently on the point of achieving a settlement, when the Young Turks suddenly recovered control at Constantinople and rejected the peace terms. The fighting started again (February); Janina, Adrianople, Scutari fell in

rapid succession. The powers stepped in again, the armistice was renewed, the London conference was reopened, and at the end of May, 1913, the Treaty of London was signed.

Much as after Japan's triumphant victory over China, the powers which had merely looked on and written notes arranged matters according to their own ideas, to the unmitigated dissatisfaction of every one of the states which had shared the triumphs of the war. But the most—and most justly—dissatisfied was Bulgaria, which had been allotted



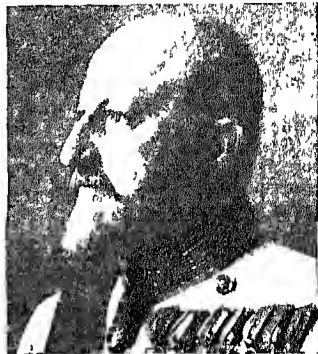
Eleutherios Venizelos



Mohammed V of Turkey



George of Greece



Ferdinand of Bulgaria



Peter of Serbia



Nicholas of Montenegro



Carol of Rumania

RULERS OF THE RESTLESS STATES INVOLVED IN THE BALKAN WARS

Liberation of Macedonia from Turkish rule was the primary object of the Balkan League formed in the summer of 1912. Bulgaria and Serbia first entered into a military convention against Turkey; Montenegro adhered to Serbia and Greece joined the League later. After the victorious conclusion of the first Balkan War disagreements arose, and in January, 1913, the second Balkan War broke out, Bulgaria pitted against Serbia and Greece; in July Rumania also intervened against Bulgaria.

Photos, Boucas and Exclusive News Agency



TURKISH SOLDIERS ON THE MARCH NEAR ADRIANOPLE

Adrianople, on the Sofia-Constantinople railway near the Bulgarian frontier, was Turkey's chief fortress in Europe and, barring as it did the road to Constantinople, was the first objective of Bulgarian attack in the Balkan war. It was held by a force of 60,000 Turks, and in October, 1912, was completely invested by the Bulgarians. The investment was maintained during the armistice, and siege operations were renewed in February, 1913. On March 26 the fortress succumbed to a combined assault by 100,000 Bulgarians and Serbians.

Photo, T. J. Damon, Constantinople

the hardest task, achieved the most striking victories and got next to nothing for her pains. In an evil hour Bulgaria resolved to remedy the injustice by a sudden attack (June 29) on Serbia, to which had been allotted portions of Macedonia that she regarded as rightfully her own. The Serbs defeated the Bulgars, the Greeks came in to the support of the Serbs, Rumania joined in on her own account, and the last state of Bulgaria was worse than the first.

In August she was compelled to accept the Treaty of Bukarest, whereby she lost territory to Rumania, to Serbia, to Greece and finally to Turkey. Before, if she had not the spoils she had at least the honours. Her tragic blunder had lost her the honours, and subjected her to actual spoliation; but it



KING GEORGE OF GREECE IN SALONICA

Hostilities between Greece and Bulgaria nearly broke out over the possession of Salonica. The Greeks occupied the town on the morning of November 9, 1912, and refused admission to the Bulgarians, who arrived in the afternoon. But, giving way to a threat of force, they yielded it to the Bulgarians next day.

Photo, Illustrations Bureau



Notwithstanding the veto of the great powers who had constituted Albania an autonomous state, King Nicholas of Montenegro ordered the investment of Scutari, which was defended by Essad Pasha with some 30,000 Turks and Albanians. On April 22, 1913, Essad Pasha capitulated and surrendered the key to Prince Danilo, who, a few days later carried it to his father at Cetinje,



Janina in Epirus, near the Albanian frontier, was famous from 1788 to 1818 as the stronghold of Ali Pasha, the tyrannical 'Lion of Janina'. It remained a Turkish stronghold, and in the first Balkan War was held by a large garrison. A Greek division arrived before the place in November, 1912, and, reinforced by troops released by the capture of Salonica, invested the fortress, delivered a general assault on March 5, 1913, and captured the town the following day.

SCUTARI AND JANINA FALL TO THE BALKAN LEAGUE

Photos, Illustrations Bureau

The World Drift to War

had done more. It had shattered the new accord among the Balkan states, and brought back the old atmosphere of brooding and vindictive suspicion.

The Central powers would have profited by Bulgaria's victory over the other members of the now shattered league, of which, on the other hand, the consolidation would have been particularly inconvenient for Austria. As matters stood, the state which gained most by the war was the one whose depression she most desired—Serbia. But Serbia had failed to gain access either to the Adriatic or the Aegean sea, her want of a sea-board made it the easier to bring a strangling economic pressure to bear on her, and she had been deprived of Monastir, which she had captured, and on the acquisition of which she and Greece and Bulgaria were all set. Monastir would be a bone of contention calculated to keep alive the mutual jealousies and suspicions of the Balkan states, which were all to Austria's advantage, since it had been her purpose to open for herself the way to the Aegean, which would be blocked to her as long as they remained even



COLONEL ENVER BEY

Enver Bey (1882-1922) was a foremost leader of the Young Turks. In July, 1913, he recovered Adrianople from the Bulgarians, to whom it had been ceded by the Treaty of London.

superficially united. And while Bulgaria, and possibly Greece, might be won over, Serbia was at once the main obstacle to



CROWD OUTSIDE THE SUBLIME PORTE DURING THE YOUNG TURK COUP D'ETAT

Reconstruction of the Turkish Empire and complete Turkification of its peoples were the objects of the political organization known as the Young Turks. Their secret Committee of Union and Progress was formed in 1905, Colonel Enver Bey holding the foremost place in it. In February, 1913, by a sudden coup d'état they overthrew the Kiamil cabinet nominally over the question of the surrender of Adrianople, and with but little unrest set up a Young Turk government in its place.



GUN RUNNING IN IRELAND JUST BEFORE THE GREAT WAR

Civil war in Ireland was imminent in the summer of 1914, and gun runners were boldly supplying the nationalists with arms and ammunition. One specially notable incident occurred on July 26, when some three thousand rifles were landed at the Hill of Howth, about eighty miles from Dublin. The National Volunteers of Ireland, marching with their newly landed rifles to Dublin, were intercepted by a battalion of the King's Own Scottish Borderers, but resisted an attempt to disarm them.

Photo, Sport & General Press Agency

the Austrian expansion, and the external focus of Slavonic sentiment which was the most disintegrating influence within the heterogeneous Austrian empire.

THE motives which actuate governments and those which actuate their peoples at moments of crisis are not necessarily the same, though the peoples may be unconscious of the difference—the more in those countries where the governments do not derive their authority directly from the people. It is not difficult to believe in the genuine conviction of the German people that the Entente was a grand conspiracy, born of political vindictiveness and begotten of commercial jealousy, for the overthrow of Germany; that the organization of the nation for war was nothing more than necessary preparation for self-defence, and that when the Central powers flung down the challenge it was only because no other course was open to them. But it is not possible to credit the German government with the same belief, or to doubt that it chose its own moment under the impression that it would have only France and Russia to fight and would be able to wipe France off the board before Russia could come into action effectively. Nor is it easy to doubt that the kaiser and his

entourage, like Napoleon a century before, were deliberately aiming at a world domination, that Algeciras, Bosnia and Agadir were all moves intended to test the strength of the opposing combination, and that the mastery of the Near East was regarded as the key to the situation.

In the affairs of Algeciras and Agadir the British attitude had been disturbing; England, without acknowledging the existence of any formal alliance, had manifested a determination to stand by France if she were made the definite object of aggression. England had indeed professed her own warm desire for such a mutual understanding with Germany as she had already reached with France and Russia, her readiness to do her best to facilitate a similar understanding between the two empires and the other Entente powers, and even to pledge herself to neutrality should the latter take aggressive action against the Central powers; but she had firmly declined to pledge herself to neutrality should the Central powers be the aggressors.

But in 1914 a change had apparently befallen. England was paralysed. The Irish question had reached such a pitch of intensity that Ulster was proclaiming her right to resist in arms her subordination to an Irish national parliament and executive,

The World Drift to War

half England was declaring that Ulster was in the right, and officers of high standing in the army were openly asserting that they would refuse to act against Ulster. Civil war was in the air. A Liberal government was in office, and it was the established belief of European chancelleries that Liberal governments were peace-at-any-price governments. All the circumstances being taken into consideration, the risk of England being drawn into a European war was small, and if she did come in, her army was small and apparently mutinous, her fleet, according to her own vociferous publicists, was inefficient, either Nationalist Ireland or Ulster would seize the opportunity to revolt—England was probably off the board altogether; if she were not, she might give some trouble, but the risk was worth taking.

The hour, then, had come for striking. The Bismarck tradition required that an occasion should be manufactured, and that the occasion should have at least the appearance of being an unwarrantable aggression by the party that was in fact being attacked.

The occasion arose in June, 1914. The

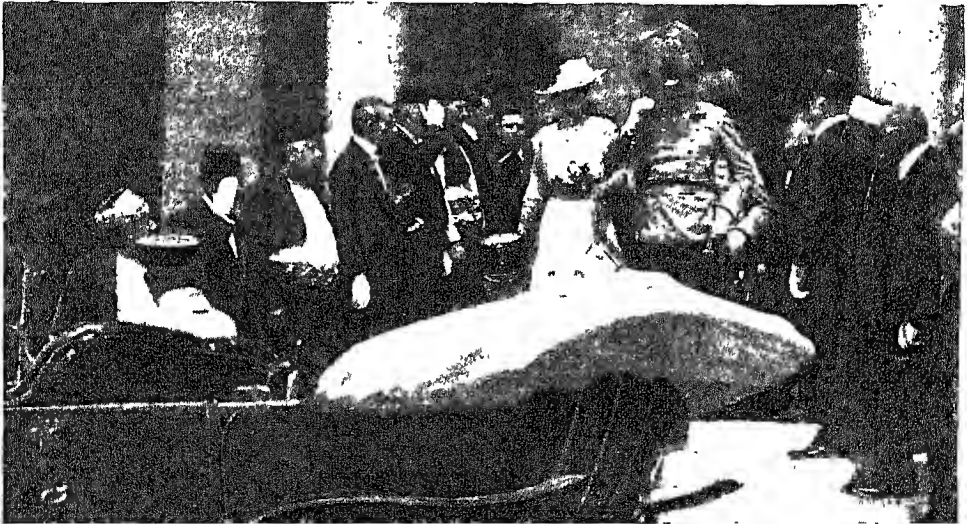


EMPEROR WILLIAM II

From his accession as German emperor in 1888 until his abdication, November 9, 1918, William II was a restless and disturbing figure in Europe owing to his military preoccupations and ambitions. This photograph was taken in 1913.

Photo, Voigt

archduke Francis Ferdinand, heir presumptive to the Austrian imperial crown, the



VICTIMS OF THE TRAGEDY THAT PRECIPITATED THE GREAT WAR

Archduke Francis Ferdinand, heir to the Austrian imperial throne, accompanied by his wife, paid a visit to Sarajevo, the chief town of Bosnia, on June 28, 1914. On their way to the Town Hall a bomb was thrown into their car; this the archduke himself threw away on to the road, where it exploded. When they had left the Town Hall, only two or three minutes after this photograph was taken, a

Bosnian high-school student fired two shots at the royal pair, instantly killing them both.

Photo, Walter Tausch

prince who was generally believed to be Slavophil, was assassinated in the streets of the Bosman city of Serajevo. The assassins were Austrian subjects—but they were Serbs. The murder, then, must be a Serbian plot fostered by the Serbian government. It was indeed not difficult to suggest an entirely different origin for the crime, since it could in no conceivable manner further Serbian or Slavonic interests; but the Austrian government had no doubts about the matter. Even at the best, the intolerable Slavonic propaganda emanating from Serbia must be at the bottom of the outrage. After a brief interval, on July 23, Austria sent to the Serbian government a series of demands acceptance of which would be a complete abrogation of Serbia's sovereignty. Austria was to be at once the accuser, the investigator and the judge, exacting such penalties as she thought fit. Serbia pleaded for appeal to the Hague Tribunal; Austria would have none of it.

Serbia, by herself, lay at Austria's mercy. But Austria's action was a direct challenge to Russia. If Russia failed to

defend Serbia, that would be an end to the particular matter, but it would also be the end of Russian influence in the Balkans, and an intolerable humiliation in the sight of all the world. If she took up the challenge France could not withhold her support; Germany would uphold Austria as the aggrieved party. England, which was under no pledge, urged reference of the whole question to a European conference; Germany explained that in her view this was Austria's private affair. England offered mediation; Austria declined it. No one had a doubt that at a word from Germany Austria would waive her claim to be the sole arbiter, but the word was not forthcoming.

Outbreak of the Great War

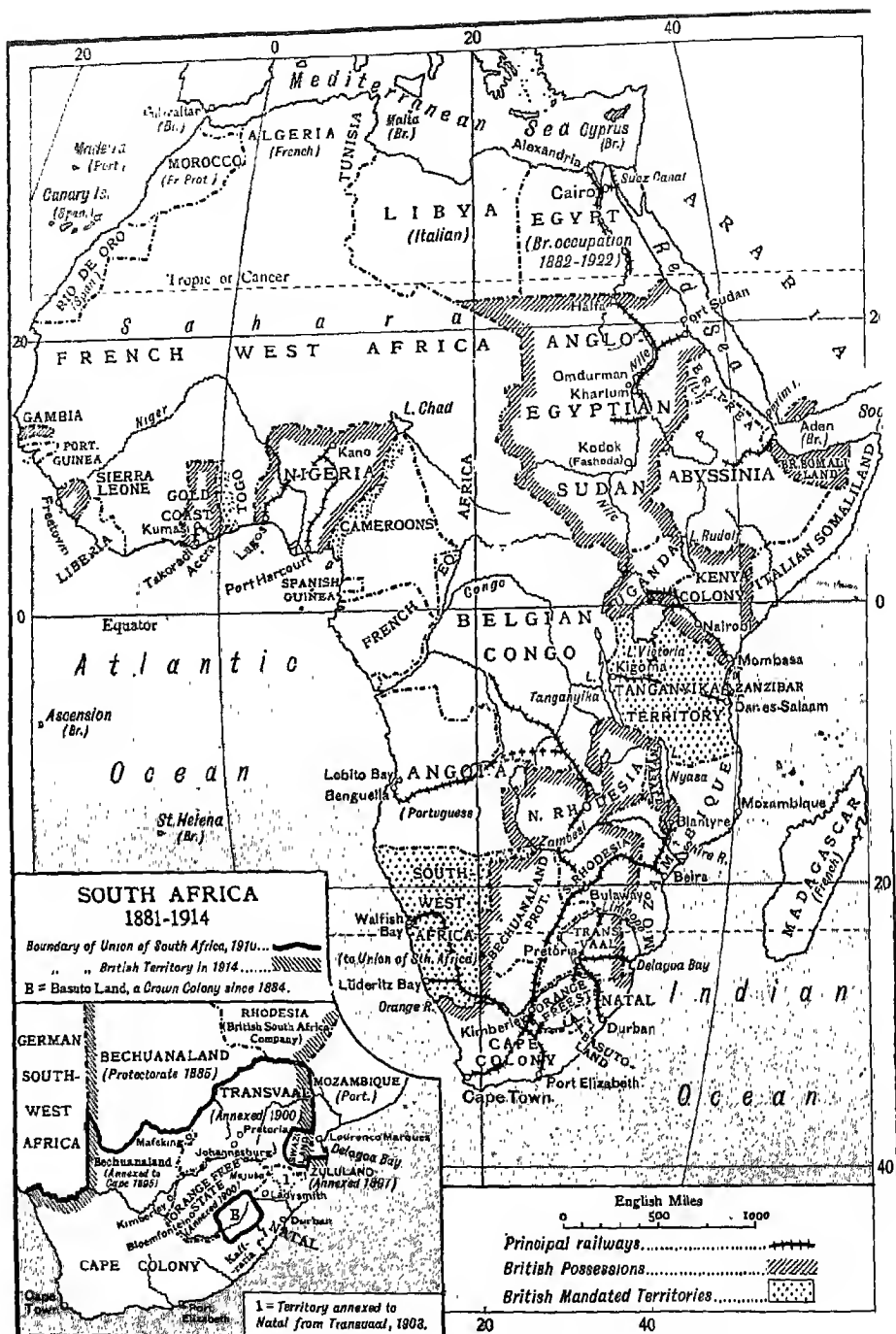
ON July 28 Austria declared war on Serbia. Russia, if she left Serbia to her doom, would cease to count as a European power. During the next two days Germany suggested that Britain should remain neutral if the outbreak of war should compel her to attack France via Belgium—whose neutrality all the powers were bound under the most solemn obligation to respect, as Bismarck had respected it in 1870. In the British view, however, those obligations were binding. On July 31 mobilisation orders were issued both in Austria and Russia. If, as it is possible to believe, there was still, as concerned Austria and Russia, some shadow of a chance of peace, it was obliterated by an ultimatum—on the same day—from Germany to Russia and to France. On the next day, August 1, she declared war on Russia. France, bound to take her stand by Russia, renewed her pledge to respect Belgium's neutrality, which Belgium declared her determination to maintain; Germany evaded the question—on which the British government resolved to stake its own action. On August 2 German troops entered Luxemburg and Germany declared war on France. On August 3 her troops entered Belgian territory. On that night the British ultimatum was sent to Germany. The violation of Belgium had welded the whole country into solid support of the government. On August 4 Great Britain declared war on Germany.



LICHNOWSKY'S LAST DAYS IN LONDON
Prince Charles Max Lichnowsky, appointed German Ambassador to the Court of St. James's in 1912, was consistently actuated by desire to improve Anglo-German relations. His dejection is reflected in this photograph of him leaving the Foreign Office the day before the ultimatum.

TABLE OF DATES FOR CHRONICLE XXXI

- 1878 Victor Emmanuel d.; acc. Humbert I.
Pius IX d.; acc. Leo XIII.
Berlin Congress and treaties. Complete independence of Serbia, Montenegro and Rumania; Bulgaria much reduced from the Russian plan; Bosnia a temporary Austrian protectorate; Russia takes Bessarabia, giving Rumania Dobruja; British protectorate in Cyprus.
- 1879 Macmahon resigns French Presidency; Bonapartism perishes with the death of the Prince Imperial in the British Zulu war; permanence of the French Republic gradually assured.
Alexander of Battenberg accepts principality of Bulgaria as the tsar's protégé.
Afghanistan: British legation at Kabul cut to pieces, beginning Afghan war.
- 1880 Afghan campaign. After decisive victories the British retire, leaving Abd er-Rahman to establish himself as amir.
Gladstone ministry; Lord Ripon Indian viceroy.
U.S.A.: President Garfield assassinated.
- 1881 France, encouraged by Bismarck, occupies Tunis, causing friction with Italy.
Transvaal war; Transvaal retroceded to Boers.
Bulgaria: Prince Alexander's coup d'état.
Alexander II murdered by nihilists; acc. Alexander III.
- 1882 Italy joins in Triple Alliance with Germany and Austria.
Bombardment of Alexandria and overthrow of Arabi Pasha. Tewfik's government restored under British protectorate and control. Mahdi appears in Sudan.
- 1883 Alexander restores Bulgarian constitution and dismisses Russian advisers.
- 1884 India: Racial feeling aroused by Ilbert Bill. Lord Dufferin succeeds Ripon as viceroy.
General Gordon sent to the Sudan.
U.S.A.: Grover Cleveland elected president (1).
- 1885 Union of Rumelia with Bulgaria under Prince Alexander; Serbia declares war on Bulgaria, and is heavily defeated at Sivilitza.
Alfonso XII of Spain d.; acc. Alfonso XIII; regency of Maria Christina.
Penjdeh incident (collision of Russian and Afghan troops) smoothed over.
France acquires protectorate in Annam and Madagascar.
Fall of Gordon at Khartum; temporary abandonment of Sudan.
- 1886 Alexander of Bulgaria is kidnapped, and resigns. Bulgar government maintained under Stambulov.
- 1887 Agreed delimitation of Afghan, Indian and Russian frontiers. Annexation of Burma. First meeting of Indian 'National Congress.'
Bulgaria: Acc. Ferdinand of Saxo-Coburg.
- 1888 William I d.; acc. Frederick I, then William II.
U.S.A.: Benjamin Harrison president.
India: Lord Lansdowne viceroy.
- 1889 William II pays first state visit to the Sultan.
- 1890 William II dismisses Bismarck.
Anglo-German treaty delimiting spheres of influence in Africa.
- 1892 U.S.A.: Cleveland president (2).
- 1893 Serbia: Fall of Obrenovitch dynasty; acc. Peter Karageorgevitch.
- 1894 Alexander III d.; acc. Nicholas II.
France: Murder of President Sadi Carnot.
Bulgaria: Fall of Stambulov; Ferdinand takes control into his own hands.
India: Lord Elgin viceroy.
Chino-Japanese war; defeat of China. Treaty of Shimonoseki. The powers intervene to scramble for Chinese concessions.
- 1894-6 Turkey: Armenian massacres and insurrections.
- 1895 Franco-Russian agreement, developing into Dual Alliance, balancing central Triple Alliance.
S. Africa: the Jameson Raid.
- 1896 Final Armenian massacres; the Kaiser compliments Abdul Hamid.
U.S.A.: Venezuelan-British boundary dispute submitted to American arbitration. McKinley elected president.
- 1897 First German naval programme.
Cretan revolt helped by Greeks; stopped by the powers (Germany and Austria abstaining) who guarantee Cretan autonomy. Greek invasion of Thessaly totally defeated by Turks.
The European powers demand and obtain concessions in China, where hostility to foreigners raises the Boxer rebellion.
- 1898 China: Empress-dowager usurps power, deposing the emperor.
The tsar assembles first Hague Conference.
American-Spanish war; complete defeat of Spain; U.S.A. annex Philippines.
Re-conquest of Sudan. The Fashoda incident; irritation in France against England.
India: Lord Curzon viceroy.
- 1899 S. Africa: Boers invade Natal; beginning of South African war (Oct.).
- 1900 China: European legations in Peking besieged by Chinese 'rebels'.
Germany: Great development of naval programme.
Commonwealth of Australia established.
Queen Victoria d.; acc. Edward VII.
China: International forces march on Peking and relieve the legations; submission of the Chinese government.
U.S.A.: Murder of President McKinley; Theodore Roosevelt succeeds to the presidency.
- 1902 Germany obtains Bagdad railway concession from Turkey.
Anglo-Japanese treaty of alliance.
End of South African war.
- 1903 Tariff reform agitation in England intensifies. German suspicions of British hostility.
- 1904 Japan declares war on Russia (Feb.); Yalu battle and siege of Port Arthur (Apr.); Russians driven back on Mukden; Russian fleet destroyed (Aug.); Russian defeat on Sha-ho (Nov.).
Anglo-French entente adjusting outstanding causes of friction.
U.S.A.: Roosevelt president (2).
India: Lord Minto viceroy.
- 1905 Japan: Port Arthur surrenders (Jan.); Russians driven from Mukden (Feb.); new Russian squadron annihilated (May); war ended by treaty of Portsmouth (Aug.).
- 1906 Responsible government restored in Transvaal and Orange River Colony.
Germany submits a dispute with France supported by England (Morocco) to Algeiras conference.
- 1907 Anglo-Russian adjustment; the Triple Entente.
- 1908 The 'Young Turks' compel Abdul Hamid to concede a constitution. Ferdinand proclaims independence of Bulgaria and assumes title of tsar. Austria, supported by Germany, announces annexation of Bosnia; Russia has to acquiesce.
U.S.A.: Election of President Taft.
Indian Councils Act.
Abdul Hamid deposed by Young Turks; acc. Mohammed V (Mehmed Reshed).
- 1910 Union of South Africa established.
Edward VII d.; acc. George V.
India: Lord Hardinge viceroy.
- 1911 The king-emperor George V visits India; Delhi reinstated as capital of the Indian Empire.
Italy demands protectorate of Tripoli; Turco-Italian war. Italy annexes Tripoli.
Agadir incident; immediate threat of war averted.
- 1912 Venizelos organizes the Balkan League. Albanian revolt. War declared between League states and Turkey (Sept.); Turkish débâcle; armistice (Nov.).
Chinese imperial dynasty ends; Chinese republic.
U.S.A.: Woodrow Wilson elected president.
- 1913 Balkan war renewed; stopped by powers. Treaty of London (May); Bulgaria attacks Serbia (June) and is totally defeated. Treaty of Bukarest (Aug.).
- 1914 Irish crisis.
June 28: Francis Ferdinand murdered at Sarajevo.
July 23: Austrian ultimatum to Serbia; 28: War declared on Serbia; 31: Austria and Russia mobilise.
Aug. 1: Germany declares war on Russia; 3: Germany declares war on France; 4: Great Britain declares war on Germany.



BRITISH EXPANSION IN AFRICA DURING FORTY YEARS

Long friction between the British and Dutch culminated in the annexation of the Orange Free State and the Transvaal Republic in 1900 and the constitution of the Union of South Africa in 1910. German South-West Africa was entrusted to the Union under mandate after the Great War. Southern Rhodesia was given responsible government in 1923, and, with Tanganyika, ceded to Britain under mandate, British control in Africa extended from the Cape to Cairo. In West Africa the Gold Coast and Nigeria were also expanded by mandated territory.

THE BRITISH EMPIRE: AN HISTORICAL STUDY

How the Lessons learnt in a tragic Colonial Failure
were used for building up a Commonwealth of Nations

By REGINALD COUPLAND

Beit Professor of Colonial History in the University of Oxford and Fellow
of All Souls College; Author of *Wilberforce*, *Raffles*, etc.

IN 1763 the territories under British rule outside the British Isles consisted of four groups of colonies or dependencies. Of these, by far the most important was the North American group. It comprised, first, Newfoundland, the oldest colony, founded in 1583; secondly, the thirteen colonies along the Atlantic coast, containing an almost wholly British population of about two million; and thirdly, a vast and largely unexplored domain to the north, ceded to Britain by France in 1763 as the result of the Seven Years' War, including Acadia (now Nova Scotia), the islands of Ile Royal and St. Jean (now Cape Breton and Prince Edward Islands), and the large province of Quebec, stretching from the outlet of the St. Lawrence to the Great Lakes and inhabited by some 70,000 French colonists, to which may be added the little fur-trade settlements established on the west of Hudson Bay by the Hudson's Bay Company. The North American group also included, for a time, the Spanish colonies of East and West Florida, ceded to Britain in 1763.

The second group was the West Indian group—the Bahamas and the British Caribbean islands, of which the largest was Jamaica, together with the Bermudas out in the ocean northwards and two strips of the Central American sea-board known as Honduras and the Mosquito Coast. In this group may be included at that time the handful of British trading posts on the west coast of Africa, since, as will presently appear, they formed one economic system with the West Indies.

The third group lay in Asia. Since its foundation in 1600 the East India

Company, which enjoyed a monopoly of the Indian trade, had built up a highly successful commercial system in India. But about the middle of the eighteenth century it was forced, almost despite itself, from commerce into politics (see *Chronicle XXVII* and Chapter 166), and by 1765 was virtually master of eastern India from Bengal to Travancore. Though these huge territories were not yet *de jure* British territories, they were part of the British Empire. Outside continental India the company's activities were confined to one small trading post at Bencool on the west coast of Sumatra.

Fourth and last, there was a little group of strategic naval stations, occupied to safeguard the maintenance of British sea power over the main trade routes. It included Gibraltar and Minorca in the Mediterranean, and in the Atlantic St. Helena, and a post in the Falkland Islands.

The ground plan of the first British Empire was thus far smaller than that of the second British Empire as it stands to-day. But, relatively

limited as it was, the first British Empire was still an immense structure, sprawling far across the world, its component parts separated by thousands of miles of sea. If distance, indeed, be judged by the time spent in transit, the gaps were much wider than they are now; and the modern student, looking back to those days of sailing ships, may well wonder how that straggling fabric could possibly be held together in any single frame. And certainly the men of 1763 were confronted with a very difficult task—so difficult that it proved, if not perhaps

The First
British Empire

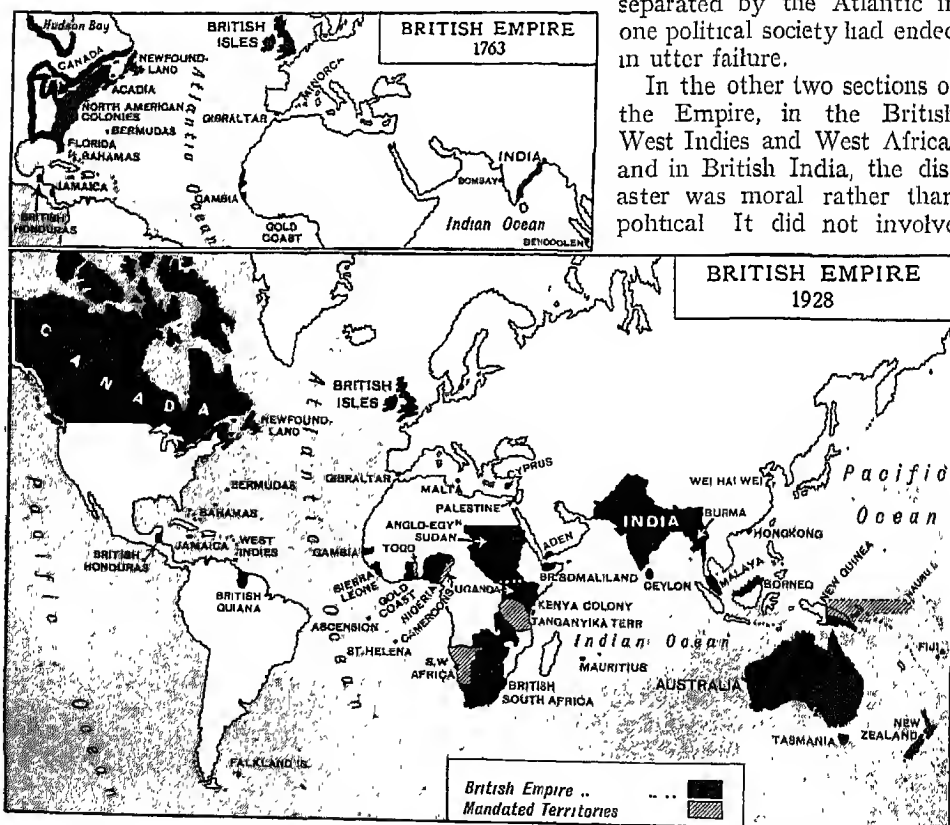
too much for their strength, at any rate too much for their minds.

On what principles, with what purpose in view, did they try to hold it together? The answer to that question is simple. They regarded the overseas Empire as a field of trade and virtually nothing else. The outcome was not unnatural. Chained to the economic standpoint, unable to think about the Empire except in the familiar commercial terms, British statesmen failed to envisage, and still more to deal with, the other aspects of the imperial question. Yet, deeply rooted in that unwieldy structure lay political and moral problems no less vital to its life and welfare than the problems of profit and loss.

Except in the fourth area, that little group of strategic posts which, being maintained for purely naval purposes, lay

apart from the other groups under military government, the result of this failure of vision was disastrous throughout the Empire. But it was a different result in accordance with the different character of each of the three other groups—the North American, the West Indian and West African, and the East Indian. The American colonies stood in a class by themselves, and the political blunders that led to the War of Independence (Chronicle XXVII) are accordingly dealt with in Chapter 152. In the upshot the greater part of the first British Empire—the really 'colonial' part, the British part, with all its possibilities of development and expansion across the wide, rich, untouched spaces of the North American continent—broke away. The attempt to maintain communities of Englishmen separated by the Atlantic in one political society had ended in utter failure.

In the other two sections of the Empire, in the British West Indies and West Africa, and in British India, the disaster was moral rather than political. It did not involve



GROUND PLAN OF THE FIRST AND SECOND BRITISH EMPIRES

With the wresting of Canada from the French in 1763 the first British Empire reached its fullest extension; with the separation of the North American colonies in 1783 it virtually ceased to exist. The lower map, drawn to the same scale, shows the astonishing recovery effected by wiser statesmanship. In less than 150 years the second British Empire absorbed Australia and the upper portion of North America, and, with its possessions in India and Africa, covered more than one fifth of the globe.

rebellion and separation but degradation, not loss of territory but loss of honour.

The English plantations in the West Indies, like those in the more southerly American colonies, had been faced from the outset with a labour problem. Under a tropical or sub-tropical sun continuous hard work out-of-doors is impossible for white men, and the economic exploitation of such areas has always depended on a supply of labour by coloured races. Neither in the West Indies nor in the southern American colonies was an adequate supply obtainable on the spot. The Red Indians were wholly unsuited for the purpose. The Caribs and South American natives were too few and feeble. The cultivation of sugar and tobacco for European consumption would indeed have proved impracticable if the Portuguese, when exploring the west coast of Africa in the fifteenth century, had not discovered that this hitherto unknown continent was peopled in parts by a strong, healthy, prolific but primitive race of black men who could, with little risk or cost, be kidnapped or purchased from local chiefs or traders and sold as slaves overseas.

The other maritime nations of Europe were soon following where the Portuguese had led. And since the West African

negroes were exactly the sort of labourers required on the trans-Atlantic plantations, their growth co-

incided with—was indeed only made possible by—the growth of a great trans-Atlantic slave trade. And Britain, though slow to join in the trade, soon acquired, once in it, the lion's share. At the period of the American Revolution about fifty per cent. of the slaves were carried in British ships. Nothing could better illustrate the basic defect of the old-fashioned mercantile imperialism. Men accepted this establishment of British colonies on a foundation of labour obtained by force or fraud from Africa because it seemed economically sound and even necessary. Beyond the economic issue they scarcely thought of looking. That a gigantic moral issue had also been raised they were, for the most part, quite unaware.

What was the outcome of this West Indian system? In the first place, slavery

became an accepted institution in the British Empire. The number of slaves on British soil across the Atlantic steadily increased—creating, it may be mentioned in passing, a problem in the southern American colonies of which they could not rid themselves when they broke away from Britain and which still haunts the United States to-day. At one time there was even a danger of slavery taking root in England; for a custom grew up among the planters of bringing their domestic slaves with them when they came home for a holiday or on retirement. Slavery illegal in England

There were actually more than 10,000 slaves in England when at length public opinion roused itself to combat it. As the result of the activities of Granville Sharp, the pioneer of a new humanitarian movement, the issue was raised in the courts in 1772, and Chief Justice Mansfield delivered the historic judgement that slavery could not legally exist on English soil. A similar judgement was shortly obtained in the Scottish courts; and so, in Britain at least, every slave was freed and there could never be another. But slavery could still legally exist on British soil overseas. At the beginning of the nineteenth century there were nearly 800,000 slaves in the British West Indies.

The second result of the old West Indian system was still more evil. Slavery implied the slave trade. The total number of Africans transported overseas ran into several millions; and almost as many must have died or been killed in the process. The slave trade, in fact, from its first operation to its last, was sheer cruelty. On the march in chained gangs to the coast many died of exhaustion or brutal treatment. On the slave ships they were packed so tight, on shelves between decks, that sometimes they could not lie flat on their backs; and the conditions of their six weeks' voyage across the tropical Atlantic—known as the 'middle passage'—were so indescribably bad that sometimes as many as a quarter of them died. Finally, arrived in port, they were doctored up and exposed for sale in the open market—some of them fetching high prices, others bundled together in 'parcels' and sold cheap as 'refuse.'

The modern student of these eighteenth-century days cannot help asking how the slave trade could have been tolerated so long. It is easy to answer him. Economics smothered ethics. The slave trade was accepted even by humane and thoughtful Englishmen as an economic necessity. The West Indian colonies were a purely economic proposition. They existed to supply sugar and tobacco. For this supply slaves were necessary. And a second 'necessity' grew out of the first. British capital became deeply involved in the trade, the profits of which were so safe and large, being often as high as 30 per cent., that it was regarded as the most lucrative of all trades; and the ports of Liverpool especially, but also of Bristol and London, owed much of their prosperity to their share in it. Thus

its continuance seemed a 'necessity' for British commerce. And out of these again grew a third 'necessity'—political necessity this time. To stop the trade, it was argued, would simply mean that the British share therein would be at once appropriated by Britain's ancient rival and enemy, France, and by other foreign states, and that Britain's mercantile marine, the nursery of her naval strength, would be proportionately diminished and the French increased.

Scarcely less grave, though happily far briefer in duration, were the evils resulting from the old conception of empire in British India. By 1765, as has been seen, the East India Company had become the virtual master of Bengal and other wide tracts of India. To statesmen of insight it should at once have been clear that this

situation involved Britain in political responsibilities. To evade those responsibilities by pretending that the British government on the one hand was not concerned with the affairs of a private commercial company in India, and that the company on the other hand was still concerned with trade alone, was bound to lead to trouble. But so potent was the traditional theory of empire that even Clive and Chatham, with all their grasp of practical politics, succumbed to it.

Failing annexation to the British crown, the dangerous divorce of power from responsibility continued. And power without responsibility sets too hard a strain on the virtue of ordinary men. When Clive returned to England in 1760 the Company's officials, with the exception of the few men of honour and humanity among them, seized their chance. They did not merely accept 'presents' from native potentates, they extorted them. They interfered in the administration of the puppet nawab of



DISEMBARKATION OF A BATCH OF SLAVES

The enormous profits yielded by the slave trade to its controllers ensured its rapid growth in the eighteenth century. Under appalling conditions African negroes were shipped off to the West Indies, where their labour on the sugar and tobacco plantations was regarded by the British as an economic necessity.

From *Stedman, 'Surinam' 1776*

Bengal and distributed offices in his government at a price. They insisted further on obtaining for their own private trading operations exemption from all transit dues, with the result that they soon began to monopolise the internal trade of the country and to ruin the native merchants. Under such conditions any approach to good government was quite impossible, and Bengal drifted fast into general licence and anarchy.

At last, the Company's directors, alarmed at the diminution of their revenues and of their shareholders' dividends, intervened. In 1765 Clive was sent out again as governor of Bengal. 'I shall only say,' he reported, 'that such a scene of anarchy, confusion, bribery, corruption, and extortion was never seen or heard of in any country but Bengal; nor such and so many fortunes acquired in

Age of Misrule so unjust and rapacious a
in India manner.' Besides obtaining the Diwani (see page 4443) and establishing the so-called 'dual system,' he compelled every official to sign a pledge against accepting 'presents.' He enforced the payment of the transit dues on all their private trade. But these measures could only be effective as long as Clive was on the spot; and in 1767 he finally retired. At once the tide of oppression flowed back over Bengal. The dual system in dishonest hands made extortion even easier than before. It was not till 1772, when Warren Hastings was promoted to the governorship, that once more the tide was checked and the process of reform resumed.

For ten years—from 1760 to 1765 and from 1767 to 1772—British rule in India had been gross misrule. Nobody can whitewash that black decade. It can only be pleaded that it was the inevitable result of the old, unenlightened imperialism, that the British were no worse than other Europeans, and that, when their consciences had been awakened to the realities of the scandal, when the new imperialism replaced the old, they made the British government of India a better, purer and more efficient government than the Indian people had ever known.

In each of these fields, then, the first British Empire had proved a political or

moral failure. It had failed politically in North America. It had failed morally in the West Indies, West Africa, and India. And the reason was quite plain. Trade is an essential factor in human relations and in the organization of any society; trade in itself is a good thing. But to make trade the sole or the dominating factor in human relationship, to regard its profits as the only motive of a society, is to seek to live by bread alone; trade by itself is a bad thing.

To nations, as to men, second chances are rarely offered; but such was the development of the world's history that the British **The Second** people, having signally **British Empire** failed to construct the first British Empire on good and lasting foundations, were enabled to construct a second British Empire, and, profiting by the lessons of their failure, to make it far better and far more durable than the first. To-day, after nearly 150 years, it still exists.

In the course of a speech in which he recommended the House of Commons to accept the humiliating treaty that closed the American War of Independence, the son of Chatham called on his countrymen to face their losses bravely and make the most of what remained. 'Let us examine what is left,' said the younger Pitt, 'with a manly and determined courage . . . The misfortunes of individuals and of kingdoms that are laid open and examined with true wisdom are more than half redressed.' What, then, was there left? To begin with, besides Newfoundland, a great continental territory in North America was still subject to the British crown. When the thirteen colonies rose in revolt, they naturally aspired to win the whole continent to independence; but all their efforts failed to bring over the part which then included the islands off the St. Lawrence estuary, the peninsula of Nova Scotia and the great province of Quebec, and which now constitutes the eastern half of the Dominion of Canada.

They failed because in this one field of the Empire British ministers had shown a real understanding of the political situation and a real statesmanship in handling it. They recognized that the first need was

to conciliate the French colonists, who formed the vast majority of the population, to British rule; but, in pursuit of this end, they were confronted by the problem of conflicting nationalities, which is all too familiar to our modern world. For on the heels of the conquering British army, into a country long populated

The problem in Canada by Catholic Frenchmen, who regarded their religion and their system of civil law as

the hall-marks of their treasured nationality, had come a handful of British settlers, all Protestants, imbued with the hatred of Romanism which was traditional in New England, and mostly traders who found their prospects of commercial enterprise hampered by the lack of English law. Moreover, while the French Canadians, who had always been subject to the purely autocratic rule of the kings of France, had no knowledge or experience of self-government and no capacity or desire for it, the British newcomers maintained that at least such a measure of representative government as had long existed in the southward colonies was their inalienable birthright.

The British ministers wavered; but happily they were persuaded by the 'man on the spot,' Sir Guy Carleton, a great

soldier and statesman, a friend of Wolfe and the second civil governor of Quebec, that to grant the British minority's demand, to replace the French law by English and to set up a representative assembly consisting of British Protestants alone, was not only a gross injustice to the French Canadians but an abandonment of the primary policy of conciliation. Accordingly, the same Lord North government which passed the unwise penal measures that precipitated the American Revolution passed, at the same moment, in 1774, the wise Quebec Act which confirmed the free exercise in Canada of the Roman Catholic religion, maintained the French-Canadian law, and continued the 'crown colony' system of government by a governor and nominated council. The British minority was bitterly disappointed; but the French Canadians, or at least the educated classes among them, recognized in the act a proof that the British government and Parliament were genuinely determined to tolerate and protect their nationality. Thus the keystone was preserved for a new imperial fabric, which was one day to bestride the North American continent and to point onwards over the Pacific.

It so happened that one of the results of the American Revolution was the



VIEW OF QUEBEC THE YEAR AFTER ITS CAPTURE FROM THE FRENCH

From 1663 until it was taken by the British in 1759 Quebec was the capital of French Canada. Its new rulers had therefore to decide their policy towards the French Canadians who composed the majority of its population. The wisdom of Sir Guy Carleton's conciliatory principles was recognized by the British government, and found expression in the Quebec Act of 1774, which confirmed the French colonists in their religion and law. This sketch of the intendant's palace is by Richard Shortt.

From Shortt & Doughty, 'Canada and its Provinces: Quebec,' Publishers' Assn. of Canada

provision of a kernel of British population for this vast and still mainly unoccupied territory. There had always been a minority in the thirteen colonies—'Tories' they were called—who clung to their old allegiance; and, at the close of the war, several thousands of them resolved to abandon their homes and begin a new life somewhere under the old flag. Some forty thousand of them crossed the border into Canada. Twenty-eight thousand settled in the western part of Nova Scotia, which was presently constituted a separate province called New Brunswick. Twelve thousand settled in Quebec, mostly in the wild upper country near Lake Ontario.

This latter immigration inevitably revived the question of nationality. The British settlers were now no longer a small and insignificant body; and they had a claim on the gratitude of the mother country. An official title of honour, United Empire Loyalists, was bestowed on them and they were compensated for the losses they had suffered. But was that enough? Could they be expected to accept the French regime of the Quebec Act? Were they to be deprived of the English law and those very forms of English liberty to which they had proved their devotion? It was a difficult problem, for clearly the French Canadians had also some claim on British good will; and Pitt's government decided to cut the knot. The Canada Act of 1791 divided the old Province of Quebec into two provinces, Upper and Lower Canada (corresponding to the present Ontario and Quebec). In the latter, where the bulk of the French Canadian population lived, the French system of law—the Quebec Act system—was retained. In the former, where the bulk of the loyalists had settled, English law was introduced.

In both, since it seemed impracticable to deny to one what was conceded to the other, representative institutions were set up. They were on the same limited scale as in the old, lost thirteen colonies; it was still 'representative' and not 'responsible' government; it was still purely local in its scope and provided no inter-provincial machinery nor any means of sharing in

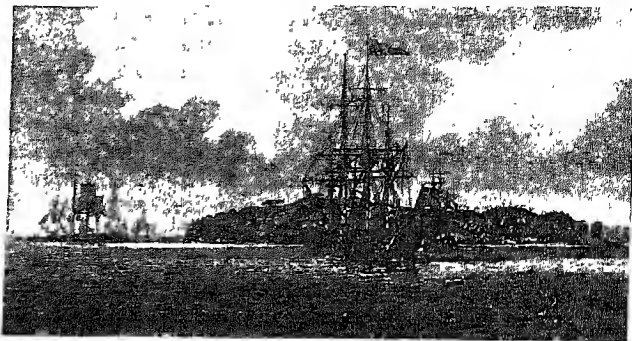
external or imperial affairs. If a clause had not been inserted in the act declaring that the Imperial Parliament would never again tax these colonies for revenue, it might almost have seemed as if the American Revolution had never happened. But it would be false to assume that the statesmen who framed the act had learned no lesson at all from the American disaster.

The real importance of the act was that its authors regarded it as only a beginning. Its object was, said Pitt in the House of Commons, 'to bring the government of the province as near as the nature and situation of it will admit to the British Constitution.' And his intimate political colleague, Dundas, was still more explicit. 'We will not pretend,' he said, 'to give Canada the same constitution as we ourselves live under. All we can do is to lay the foundation for the same constitution when increased population and time shall have made the Canadians ripe to receive it.' Those statements inaugurated a new epoch in British imperial history. For they tacitly admitted that British citizens in Canada had a right, in course of time, to the same political status as British citizens in Britain. In other words, the old mercantile principle of empire had been at least half abandoned.

Just at this time, moreover, the foundations were being laid of a new colonial structure in another continent. Though Britain had lost the command of the sea at one fatal crisis of the American War, she had recovered it by the Battle of the Saints (1782), so that when peace came the sea ways lay open to her and none could prevent the establishment of new British colonies in any unoccupied area in the world. The existence of such an area—vast, fertile and admirably suited for European settlement—in the Southern Seas at the other side of the earth had long been known to European explorers; and as recently as 1769–70 Captain Cook had made his famous voyage to New Zealand and Australia. The French were also sending expeditions thither at the same time with an eye to commercial or colonial expansion. Yet neither Britain nor France had ventured to attempt a

settlement so far away; and Australasia might have remained yet longer unoccupied by white men if the American Revolution had not forced the question on the attention of the British government.

It had been customary to transport a large number of English convicts to work out their sentences on the plantations in the old American colonies; the Revolution had closed this area; a new one had somewhere to be found; and, after trying the west coast of Africa and discovering its climate to be fatal to the convicts' health, Pitt and his colleagues decided that, if Australia was not the best place for a loyalist colony, it might well be the best place for a penal settlement. If at first sight a penal settlement might seem a dubious foundation for a new colony, it must be remembered, first,



BOTANY BAY, NEW SOUTH WALES

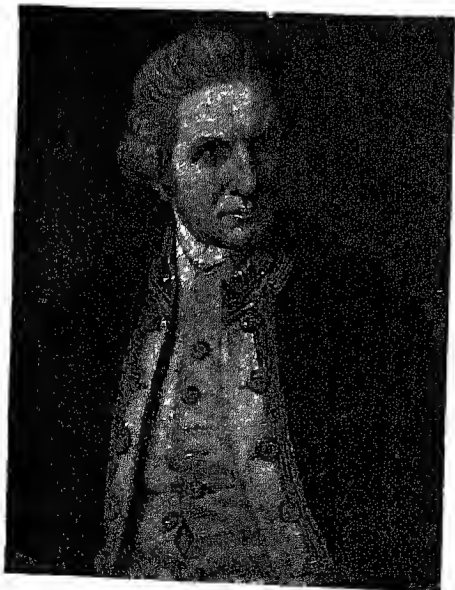
Botany Bay was discovered by Captain Cook in 1770 and selected in 1787 as the site for a British penal settlement. Captain Phillip, who visited the place in 1788, considered it unsuitable for the purpose, and the scheme was carried out in the locality where Sydney now stands, five miles north of Botany Bay.

From Arthur Phillip, Voyage to Botany Bay'

that the old penal code was incredibly severe by modern standards and sentenced men to transportation for what would now be regarded as political or petty offences, and secondly that, very soon and in growing volume, free emigrants accompanied the convicts.

From this first little foothold British colonisation was presently to spread over all Australia, across the ocean to New Zealand 1,200 miles away, and out among the myriad islands of the Pacific. Not only, therefore, was the character or the principles of the second British Empire in its colonial or strictly British field to be different from those of the old. The ground plan also was to be far wider.

A similar transformation was occurring at the same time in the other imperial fields. The growth of the humanitarian movement in England, led by the Quakers and high-minded men like Granville Sharp, was already beginning to threaten the mainstay of the West Indian and West African system—the slave trade—at the time of the American Revolution; and slavery itself was being condemned on moral grounds by religious philosophers like Paley and on material grounds by economists like Adam Smith. After the Revolution the attack took definite shape in the formation of an Abolition Society bent on the destruction of the trade. It was fortunate in enlisting the sympathies of two great men, William Wilberforce, an intimate friend of Pitt, who led the



A FAMOUS EXPLORER

The British owe their first foothold on the Australian continent to the voyages of Captain James Cook (1728-79), the daring commander who circumnavigated New Zealand and visited Australia. This portrait is by Nathaniel Dance.

Greenwich Hospital

campaign in Parliament, and Thomas Clarkson, who preached the cause throughout the country and collected evidence against the trade at the seaports.

Results were soon obtained. In 1788 a bill was carried through Parliament which struck at one of the worst cruelties of the trade by limiting the number of slaves carried in any ship in proportion to its size. In 1791 a resolution

Anti-slavery agitation in favour of abolition secured a third of the votes of the House of Commons. And

in 1792, after an organized movement throughout England and Scotland (the first such movement in British political history) had brought to Parliament a huge pile of abolitionist petitions, a resolution in favour of the gradual abolition of the trade was carried in the Commons by 238 to 85. Wilberforce and his friends had pressed for immediate abolition, and in support of them Pitt had made the finest speech of his career. But gradual abolition was far better than nothing, especially as it was agreed that the process should be completed by 1796. In principle, in fact, the root evil of the old Empire in its West Indian and West African field had been condemned. It was only a matter of time for the sentence to be carried out.

The same new humanitarian ideas were mainly responsible for the transformation of British rule in India, which may be studied in Chapter 166. In its purpose and in its character the British Empire in India was so radically changed that after 1785, though it retained all its old territories, it can be called a second British Empire no less truly than the new imperial fields in other continents.

The student of these developments cannot fail to be impressed by the speed with which the advice Pitt gave at the close of the disastrous American War was adopted by his countrymen. In less than a decade the whole system of the old Empire was examined, and in each of its fields the old principles were condemned, and new principles affirmed and partly put into practice. Now, this great work might never have been done if it had not been so quickly done. For that decade, 1783-1793, was only a brief breathing-space between two wars. In 1793 the

British Empire was involved in the conflict with the French Revolution which presently developed into the conflict with Napoleon. With one short break (1802-3), this great war lasted for over twenty years, and, as it grew into a desperate struggle to the death between the French military command of Europe and the British naval command of the sea, so the minds and energies of Englishmen became more and more concentrated on the immediate needs of self-defence. If they had not reviewed and reorganized their imperial policy before 1793, they would never have had the time or the will to do it till after 1815.

There was one exception. They did find the time, they did acquire the will, during the actual course of the war to complete the work begun for the abolition of the slave trade. And this was mainly due to the pertinacity of one man. In **Final triumph of Emancipation** the earlier days of the war it seemed to most of the supporters of abolition that their cause must needs be shelved till peace returned. But Wilberforce would not wait. The continuance of the slave trade was, in his eyes, a great national crime, and a time when the nation was fighting for its existence seemed to him the very time for it to clear its conscience. And so, year after year, he continued to plead the cause of the negroes in Parliament and outside it.

For a long while nothing happened. The parliamentary inquiry into the facts of the trade petered out. Wilberforce's annual resolutions were voted down by large majorities. But, all the time, the conscience of the country was being kept awake. It only needed some shifting of political forces to enable it to ease itself. And when, broken by the war, Pitt died in 1806, and a coalition government was formed, which included Fox, at long last the old resolution was carried; and in 1807 a bill was enacted by which the slave trade was 'utterly abolished, prohibited, and declared to be unlawful.' In 1811 participation in the trade was made a felony. And so at length the British people ceased doing the worst thing they had ever done. They had taken the first step in humanising their relations with the

people of Africa. And the second step—the abolition of slavery itself—could not now be long delayed.

Meanwhile, the ground plan of the British Empire had been expanding as the inevitable result of the operation of British sea power during the war. It is an instructive illustration

**Expansion during
Napoleonic Wars** of the manner in which a defensive strategy becomes offensive; for all,

or almost all, the British conquests in the war were made with the purpose of counteracting Napoleon's aggressive designs. The acquisition of British Guiana, Trinidad, Tobago and St. Lucia in the West Indian area was partly due to the need of curtailing French attacks on the adjacent British colonies and on British trade. The acquisition of Malta and the Ionian Islands was wholly due to the need of preventing Napoleon from using the Mediterranean as the pathway to Egypt and the East. And it was the need of thwarting those designs of conquest in the East that led to still further and wider British annexations round the outskirts of the Indian Ocean, as well as in India itself.

Napoleon's proposed encirclement of India from the sea was frustrated by a series of naval and military strokes. As soon as Holland had been forced into alliance with France, the Cape of Good Hope, the first link in the sea chain to India, and Ceylon, the most dangerous hostile base because the nearest, were attacked and occupied (1795); and by this prompt action the danger was averted for some years. But at a later phase of the war a combined Franco-Dutch movement from each side of the Indian Ocean was only prevented by the capture of Mauritius and Réunion in 1810, and in 1811 of Java, which carried with it the control of all the jealously-guarded preserve of the Dutch East Indies. The occupation of Java was made memorable by the determined efforts of the new British governor, Stamford Raffles, a young official of the East India Company, of whom more will be heard later on, to apply the new doctrine of responsibility for the welfare of native races by freeing the Javanese from the bonds of the semi-

servile system in which their Dutch masters had confined them.

It is sometimes suggested that the history of the expansion of the British Empire is an unbroken record of 'insatiable grab.' If the suggestion needs any refutation, it can be refuted by the conduct of the British government at the close of the Napoleonic war. Of all the victorious powers that participated in the treaties of peace, Britain alone did not retain all the conquests she had fairly won. She restored Martinique, Guadeloupe, Réunion, Pondicherry and other lesser captures to France. She restored Surinam, Curaçao and the whole of the Dutch East Indies—an immeasurably wealthy area, the source of the spice trade with Europe—to the Dutch, and paid, moreover, a large indemnity for the retention of the Cape. The ground plan of the British Empire, with its vast possibilities of further peaceful expansion in empty and unknown lands overseas, was quite large enough in 1815, without any of these surrendered conquests, to employ all the energies of the British people in building up, in the coming nineteenth century, a far greater and better structure than that which had fallen into ruin or decay a generation earlier.

In the century that lies between 1815 and 1914 the British people were involved in no first-class European war—the Crimean War with Russia

was a relatively minor conflict—and in that century of peace they achieved a

**Building of the
Second Empire**

development in prosperity and population, in science and literature, in commerce and industry, which dwarfed any similar development in any similar age. All the circumstances were thus propitious for another wave of overseas expansion, for the building of a new empire on new principles. And the opportunity was not neglected. There were hitches, delays, set-backs; but at the close of the century the new British Empire had been built.

In the true colonial field, that part of the building which had already been begun was naturally finished first. It was in Canada that the problems associated with each stage of the process first arose,

and were first solved, the solutions being then almost automatically applied to the other colonial groups. The development of events in Canada, therefore, must be first described.

Soon after 1815 political opinion in Upper Canada began to range itself into two camps. The first, and for long the larger, camp was that of the Conservatives or Tories, who represented the original United Empire Loyalists, and from whom the executive council or provincial government was almost exclusively appointed. The second camp was that of the Reformers, who mainly represented the later immigrants and who felt themselves permanently shut out from political influence and power. Now, as long as the Tories maintained their majority in the Assembly, there might be constant friction with the opposition, but no serious deadlock. But the Reform party steadily grew in numbers. At last it obtained a slight, and in 1828 a decisive, majority at the elections. Yet nothing happened. The executive, not being under the Assembly's control, remained precisely as it was

before. It was obvious at once that, unless the majority of the electorate was Tory, the measure of self-government enjoyed by the people of Upper Canada was scarcely self-government at all. The old story of the American colonies before the Revolution was being repeated. Nor was that the only repetition. In questions which required joint action by Upper and Lower Canada—in the control of the St. Lawrence waterway, the natural outlet of Upper Canadian trade, and in the sharing between the two provinces of the customs revenue collected at the Lower Canadian ports—the lack of an inter-provincial, pan-Canadian machine of government made itself acutely felt.

Meantime, a similar but more serious political crisis was developing in Lower Canada. It was similar because it was also the result of a conflict between a majority in the popular chamber of the legislature and an irresponsible and irremovable executive. It was more serious because to this purely political issue was added the



CANADA: FIRST OF THE BRITISH SELF-GOVERNING DOMINIONS

Great Britain's colonial empire began with the foundation of Newfoundland in 1583, and after the débâcle of 1783 it was in the region of the St. Lawrence that its reconstruction began. A new era of colonial autonomy was initiated by the grant of responsible government to the united Canadas in 1847, the Pacific district was organized as British Columbia in 1856, the Dominion of Canada was created in 1867, and in 1885 the Canadian Pacific Railway spanned the continent from sea to sea.

far more dangerous issue of race against race. For the vast majority of the electors in Lower Canada and of their representatives in the Assembly were French Canadians, whereas the executive council was almost wholly British. And unhappily some of the French Canadian leaders were quick to interpret the inevitable opposition between executive and legislature in terms of a race feud. The Quebec Act was forgotten. Any opposition to their policy was denounced as deliberate oppression of their nationality. The British minority, whose commercial energy was a valuable factor in the economic life of the province, were de-



scribed as 'aliens and intruders.' Nor were the British on their side conciliatory or patient. They gave as good as they got. In the Assembly and in the newspapers a bitter race quarrel went on. In society, in business, in every field of their common life the two races drew apart and stood aloof.

Meantime, the French Canadian majority in the Assembly pressed their attack on the executive, in the sacred name of nationality, to more vigorous extremes than the Reformers of Upper Canada, and even attempted to bring the administration to a standstill by refusing to vote the budget. A deadlock was evidently



DOMESTIC SCENE IN A FRENCH CANADIAN FARMHOUSE

This lithograph of Krieghoff's painting of a French Canadian family was made in 1848. The earlier years of the century had been filled with friction between the French Canadians and the British settlers; Macnaughten's painting (top) represents a typical specimen of the sturdy 'habitant,' who would not readily part with his hardy won rights. A clash between the French and British races was inevitable, and the rebellion which broke out in 1837 was the chief reason for Lord Durham's mission.

From Shortt & Douglas, 'Canada and its Provinces: Quebec,' Publishers' Assn. of Canada

at hand. And how could it be resolved? Only by a fearless application of the doctrine of assimilation. But, since 1791, that doctrine had lain neglected and forgotten on the shelf; and, when it was now reconsidered, the policy to which it pointed seemed quite impracticable. It was an evolutionary doctrine, a doctrine of successive steps, and the next step was obviously the concession of responsible government. But to British statesmen, to Whigs as much as to Tories, responsible government seemed impossible. For, if the executive of a colony were responsible to its own legislature, if ministers were appointed almost automatically from the leaders of the elected majority in the Assembly, if the governor thus became merely a kind of constitutional sovereign like the king at home, the colony would no longer be a colony; it would be virtually an independent state.

Baffled by this dilemma, both political parties in Britain began to feel that the second colonial experiment was bound to break down like the first; and, since the independence of the colonies, their separation from the mother

**Threatened revolt
in Canada**

country, was apparently in the long run inevitable—for nobody, since the lesson of the American Revolution, supposed that they could be retained by force—the best hope was that the breach, when it came, might be friendly. But it soon seemed as if even this hope was not to be fulfilled, as if the story of the American Revolution was to be repeated right up to its tragic end. For when in Britain in 1830 the long Tory regime at last collapsed, when the Whigs had come in, carried the Reform Bill and opened a new era of political advance, when it became clear that there was to be no similar advance in Canada, when the Whigs refused as stubbornly as the Tories to concede responsible government, then at last, in 1837, despairing of any remedy but force, a small extremist section in both Upper and Lower Canada rose in armed rebellion.

The rebels were only a tiny minority of the population and they were easily suppressed. But the mere fact of rebellion had deeply stirred public opinion in



THE EARL OF DURHAM

Governor-General of Canada from May to October, 1838, Lord Durham (1792-1840) produced his influential report on British North America in 1839. The union of the two Canadas therein advocated was carried out in 1840.

From Dent, 'Canadian Portrait Gallery'

Britain. Something, clearly, was very wrong in Canada; and if it were not put right, might not the next rebellion be a veritable revolution? The government, as has been seen, had no policy; but at least they were compelled to reconsider the whole question and they were happily inspired to send out to Canada a brilliant young statesman who had been one of the authors of the Reform Bill and a member of the Whig cabinet. In 1838 Lord Durham arrived in Canada as high commissioner. Within six months he was forced by political intrigues against him at home to resign. But from what he had learned in those months he was able on his return, with the assistance of his gifted lieutenants, Gibbon Wakefield and Charles Buller, to draft the immortal Durham Report. Soon afterwards, his frail physique undermined by disappointment at the apparent failure of his mission, he died. He was only forty-eight; but he had done more than any of his contemporaries to save the second British Empire. 'Canada,' he murmured as he lay dying, 'will one day do justice to my memory'; and he was right.



LORD ELGIN

James Bruce Elgin (1811-63) was governor-general of Canada from 1846 to 1851. He pursued Lord Durham's policy and became extremely popular with the colonists. He was made a baron of the United Kingdom in 1849.

From Dent, 'Canadian Portrait Gallery'

The cardinal sentence of the Durham Report was this:

It needs no change in the principles of government, no invention of a new constitutional theory, to supply the remedy which would in my opinion completely remove the existing political disorders. It needs but to follow out consistently the principles of the British Constitution.

And after demonstrating the impossibility of harmoniously working a system which was representative only, he directly recommended that responsible government should be established in Canada on the same lines as it then existed in Britain. But what of the dilemma which had puzzled his colleagues at home? It was Durham's great achievement that he evaded this dilemma by the device of dividing up the field of government. In all local affairs, he said, the colonists must be as free as Englishmen at home. But in imperial affairs, of which the most important were the control of defence and foreign policy and of external trade, the imperial government and Parliament must still be supreme, and in these respects the governor would still act as their agent.

With this division, he held, the colonists would be content.

Nor was Durham satisfied with an improvement in the quality of Canadian self-government; he recommended also an increase in its scope.

It should no longer be provincial only, it should also be pan-Canadian. Recommendations of Lord Durham

His first idea was to propose a federation of all the British North American colonies—and this idea, as will be seen, was right—but, owing to the aloofness of the Maritime Provinces and owing to the difficulty of leaving the French Canadians in their existing state of race antagonism to control a province of their own, he finally advised, not federation, but a legislative union, beginning with the reunion of Upper and Lower Canada into one big province. He hoped—and here, as will be seen, he was wrong—that in this union French Canadian nationalism would gradually fade away till the French Canadians had become virtually 'anglicised' and absorbed into one homogeneous British community.

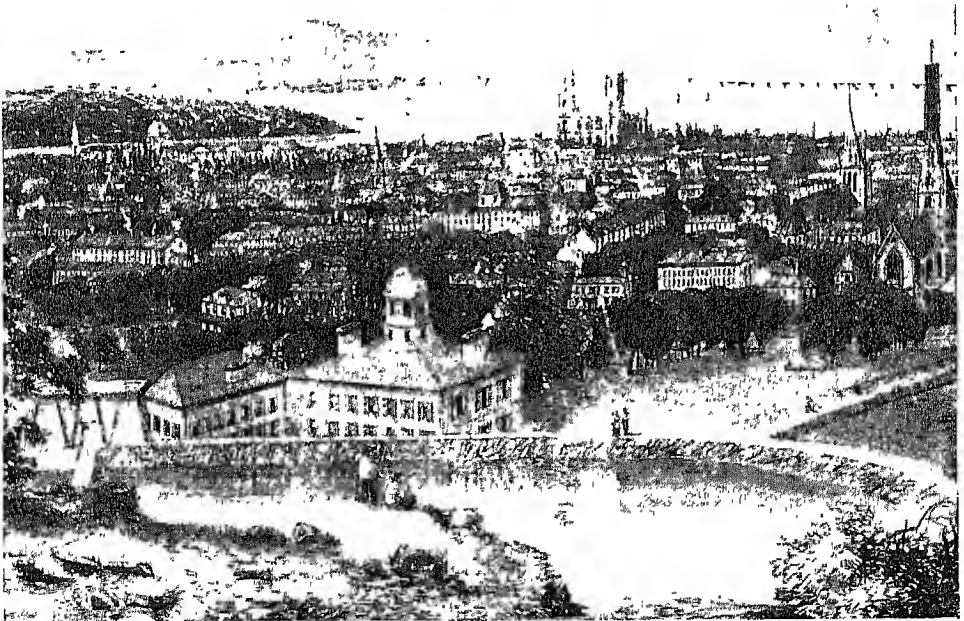
Only half of the report, and the weaker half, was adopted at once. In 1840 the Union Act was passed, reuniting the Canadas. But the issue of responsible government was evaded until Earl Grey, a disciple of Durham, became colonial secretary, and instructed Sir John Harvey, the governor of Nova Scotia (1846), and Lord Elgin, the governor of Canada (1847), that their ministers must be chosen from the party which had a majority in the Assembly and that in local affairs the advice of those ministers must be accepted. In 1849 the genuineness of the new concession was sharply tested. The majority of the Canadian Assembly, largely composed of French Canadians, passed a Rebellion Losses Bill, providing compensation for damage suffered in the rebellion, which was regarded by the British minority as virtually condoning the rebellion and flouting the sentiments of the loyalists. So high did feeling run that there were riots at Montreal, Elgin's life was threatened, and the 'loyalists' talked of abandoning the Empire and joining the United States. But Elgin stood firm. Durham's admirer and son-in-

law, he applied Durham's logic. The majority wanted the bill. He would not veto it. It therefore became law; and his action was endorsed, after full debate, by both Houses of Parliament at Westminster.

At that moment, in 1849, the second British Empire passed out of the experimental stage. It was not now going to fail, as the first British Empire had failed. There was not to be another American Revolution. For the saving principle of equality had been recognized and its adoption confirmed beyond dispute. Moreover, once this first difficult step had been taken, once it had been admitted that the will of the majority of the Canadian people was the decisive factor, there could be no retreat from it; so that the taking of each successive step in the further application of the doctrine of assimilation became practically certain as soon as the Canadian people desired to take it.

Of this last fact there was soon a convincing proof. Durham, it has been seen,

maintained that the imperial government should continue to control colonial overseas trade by tariffs and otherwise. Earl Grey and everyone else in Britain agreed. And so, when Britain abandoned the old system of protection and adopted free trade, it was assumed that free trade would be automatically imposed on the colonies. Young countries, however, need protection, if only to enable their own infant industries to live and grow; and Canada particularly needed protection against the competition not only of the fast-developing manufactures of the United States, but also of the mature and potent industries of Britain herself. In 1858, therefore, the Canadian Assembly set up a small tariff wall against imports from both Britain and the United States; and, when this was retained and increased in 1859, strong protests were made by British manufacturers. The duke of Newcastle, now colonial secretary, brought pressure to bear on the Canadian government; but



MONTREAL, CANADA'S COMMERCIAL CAPITAL, IN 1860

Situated on an island in the St. Lawrence, Montreal was taken from the French by the British in 1760. The city was the capital of Canada from 1844 to 1849, in which year it was deprived of the honour because of an outbreak in which the Parliament buildings were destroyed by the mob. Its natural advantages and magnificent harbour furthered trade, and it became the chief centre for the export of western products. The sketch is from Mount Royal and shows the towers of Notre Dame.



THE FIRST DOMINION PARLIAMENT HOUSE, OTTAWA

In 1829 Ottawa, then known as Bytown, was founded as a residence for British engineers working in the district. Its wealth and importance developed as a centre of the lumber trade, and in 1858 it was selected by Queen Victoria to be the capital of Canada. The corner stone of its splendid Parliament House was laid in 1860 by the then Prince of Wales. This building was destroyed by fire in 1916, and replaced by a similar structure but with a different tower—the Tower of Peace.

Photo, Canadian Government

its finance minister, Galt, at once replied that 'self-government would be utterly annihilated if the views of the Imperial government were to be preferred to those of the people of Canada.' If British ministers, he added, insisted on having their way, then they must govern Canada. The logic was unanswerable, and Newcastle submitted. A big breach was thus made in Durham's system of division, only twenty years after the publication of his report.

Meanwhile, the inadequacy of the Union Act to solve the pan-Canadian problem was fast becoming clear. In the first place, the reunited Province of Canada had developed no real unity. French Canadian nationality, rooted in the St. Lawrence valley long before the British came to Canada, had shown no prospect whatever of becoming absorbed in British nationality; and since the French Canadian representatives remained a compact and distinct group in the Assembly, party government on the usual lines

soon proved impossible. So stubborn was the deadlock that between 1861 and 1864 there were two elections and four ministries. Secondly, some pan-Canadian control of such common interests as inter-provincial tariffs, trunk roads and especially the new railways now beginning to be built, banking, currency and so forth was increasingly needed.

Thirdly, there was the necessity, which Durham had pointed out, of consolidating all British North America within one national framework, so as to maintain its strength and individuality against the powerful, progressive neighbour nation of the United States—a necessity now stressed by events. American pioneers were beginning to compete with Canadian pioneers for possession of the Far West; and Canada might have been cut off from the Pacific if the Oregon Treaty had not been successfully negotiated in 1846, under which the line of 49° N. was accepted as the frontier right across to Vancouver. In 1856 the Pacific district

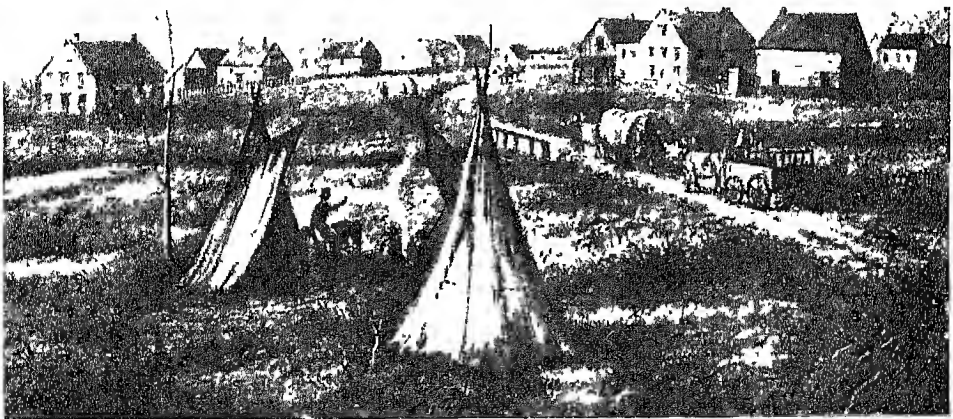
between this line and Alaska was organized as a British colony, called British Columbia; but until it was linked with eastern Canada, until, above all, a railway was built right across the continent, a task which obviously required pan-Canadian effort and control, it seemed as if the strip of British territory from ocean to ocean might somehow, some day, snap in the middle. Lastly, the American Civil War (1861-5), during which there was great tension at times between the British and United States governments, made Canadians feel how feebly they were organized, in separate provinces, for the common purpose of defence.

And so, in 1864, a conference assembled at Quebec, at which both the Conservatives under Macdonald and the Liberals under Brown, both British Canadians and French Canadians, jointly determined to establish a federal system. In 1866 Canadian delegates met in London and drafted a bill, with the sympathetic aid of Lord Carnarvon, the colonial secretary; and in 1867 the British North America Act was passed, creating the Dominion of Canada as a confederation of provinces. It consisted at the outset of Ontario and Quebec, into which the united province was dissolved, and Nova Scotia and New Brunswick. Manitoba, a new province westward of Ontario, joined in 1870. British

Columbia in 1871; Prince Edward Island in 1873; and the new prairie provinces of Saskatchewan and Alberta in 1905. Newfoundland, though geographically so close to Canada, remained and still remains outside, a separate colony.

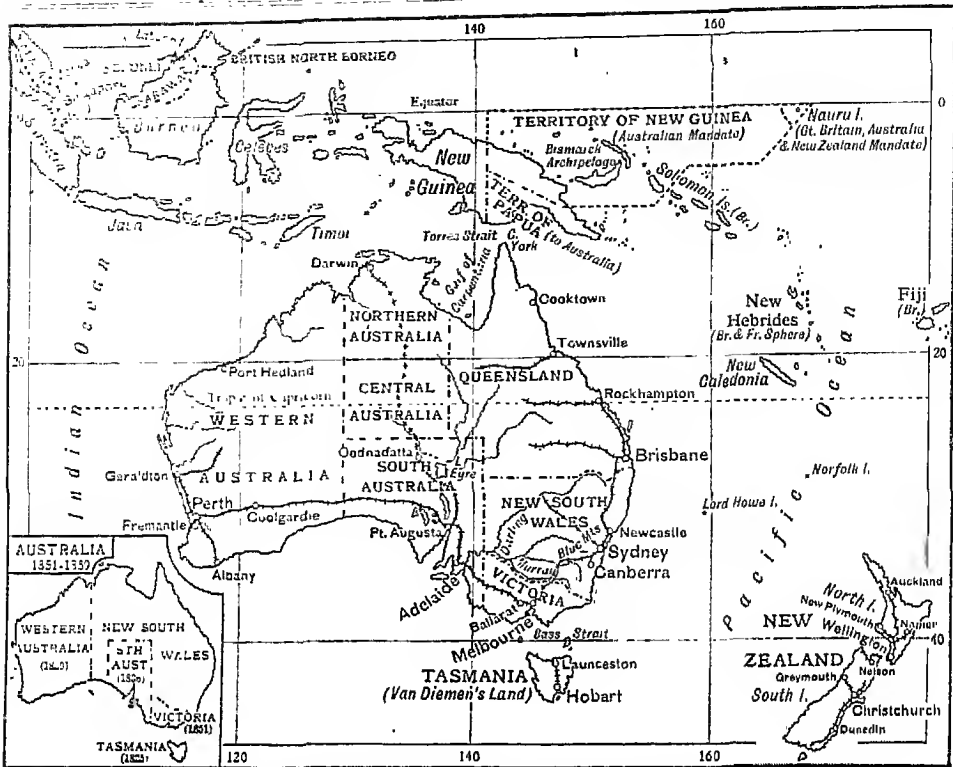
Thus, by the action of the Canadian people themselves—a further proof of their powers of self-government—another great stage in their political progress had been achieved. And two needs had been met at one stroke. The old problem of nationality had been solved by restoring to the French Canadians a province of their own, in their ancient home by the St. Lawrence, in which they could maintain their own provincial life and at the same time, combining two loyalties, take their proper place and pride in the life of the Canadian nation as a whole. Secondly, federation had settled the pan-Canadian question. Henceforward a Canadian citizen could share in the government not only of his province but of all Canada. And, that step once reached, the Canadian nation grew fast from adolescence into manhood.

In 1876 the Intercolonial Railway linked Ontario with the Maritime Provinces. In 1885 the Canadian Pacific spanned the continent from sea to sea. Agriculture and industry advanced side by side in eastern Canada. The vast prairies began to



THE SITE OF WINNIPEG AS IT APPEARED IN 1870

From its humble beginnings as a trading post for fur traders in the eighteenth century, Winnipeg became the capital of Manitoba. It forms an important centre for the marketing and distribution of the rich grain of the west. The Winnipeg river supplies electric power for its numerous industries, and the Lake of the Woods provides an adequate water supply. Winnipeg became a city in 1874—four years after this view was taken, in the year in which Manitoba joined the Union



THE FEDERAL COMMONWEALTH OF AUSTRALIA

British occupation of Australia actually began with the establishment of a penal settlement at Port Jackson, in 1788. From 1793 onwards free settlers arrived in increasing numbers and formed the nucleus of the colony of New South Wales. Western Australia was established as a colony in 1829 and Victoria, South Australia and Queensland were carved out of New South Wales in 1851, 1836 and 1859 respectively. In 1901 the Commonwealth of Australia, Tasmania included, was proclaimed.

blossom into acres of wheat. Schools multiplied. Universities grew up and flourished. And all the while population steadily increased until, at the outset of the twentieth century, the Canadian people, seven million strong, could take their place among the younger nations of the world. Nor had Durkheim's prophecy been falsified. The stronger, the freer Canada grew, the more closely did she recognize and value the ties that bound her to the Empire. As soon as Britain ceased to interfere in her affairs, the one barrier was removed to the natural influence of kinship and sentiment, of common traditions and common ideals. The twentieth century was not yet old when, at one great crisis, the unity of the Empire was to be confirmed and at the same time the doctrine of assimilation was to reach its consummation of complete equality within that unity.

While Canada thus took the lead and set the example, other nations of the Empire were growing up in other continents. The British government, although, as has been seen, it regarded Australia at the outset as nothing more than a convenient convict station, was nevertheless reluctant to see it occupied by any other European power; and when the French continued to prospect the empty continent and actually described it in a French map as 'Terre Napoléon,' one or two more British posts were established along the coast of New South Wales and on the island of Van Diemen's Land, afterwards called Tasmania. Settlement, meanwhile, was expanding into the interior from Sydney. In 1813 a way was found through the Blue Mountains to the fertile inland plain whose rivers led the explorers down to the south coast; and in 1829, on the other side of the continent, the colony

of Western Australia was founded at Perth. The frontier dividing Western Australia from New South Wales was fixed at the line 129° E., so that the whole continent was now definitely annexed; and, while the area of settlement in the remote west, cut off by the deserts of Central Australia, long remained small, the parent colony of New South Wales expanded rapidly inland and up and down the coasts. In 1836 the province of South Australia (with its capital at Adelaide) was carved out of it, in 1851 Victoria (Melbourne) and in 1859 Queensland (Brisbane).

In this work of expansion the British government had taken little part. Both Western and South Australia were founded by private companies with small encouragement from the Colonial Office; and it was only after an initial period of great economic and financial difficulty that they struggled to success. The admirable climate, the fertility of the huge coastal belt, the rapid development of sheep breeding and corn growing—all these attractions drew a steady stream of colonists from the mother country; and when gold was discovered in Victoria (1851) the volume of immigration was increased by a host of miners seeking



A LESSON IN PICTURES

Governor Davey's proclamation to the aborigines of Tasmania in 1816 gave the natives a pictorial statement of the policy of friendship that he intended to institute between blacks and whites, based on equal justice to both races.

From Dilke's *Greater Britain* 1868



A WIDE THOROUGHFARE IN MELBOURNE, CAPITAL OF VICTORIA

In July, 1851, Victoria was constituted a separate colony from New South Wales, and Melbourne, situated on the banks of the river Yarra, became its capital. This view of the town, which appeared in *Victoria Illustrated* in 1857, shows Collins Street, now famous for its fashionable shops. The discovery of gold at Ballarat in 1851 stimulated the already rapid growth of population, which increased from 30,000 to 100,000 in the course of two or three years. The town was named after Viscount Melbourne.



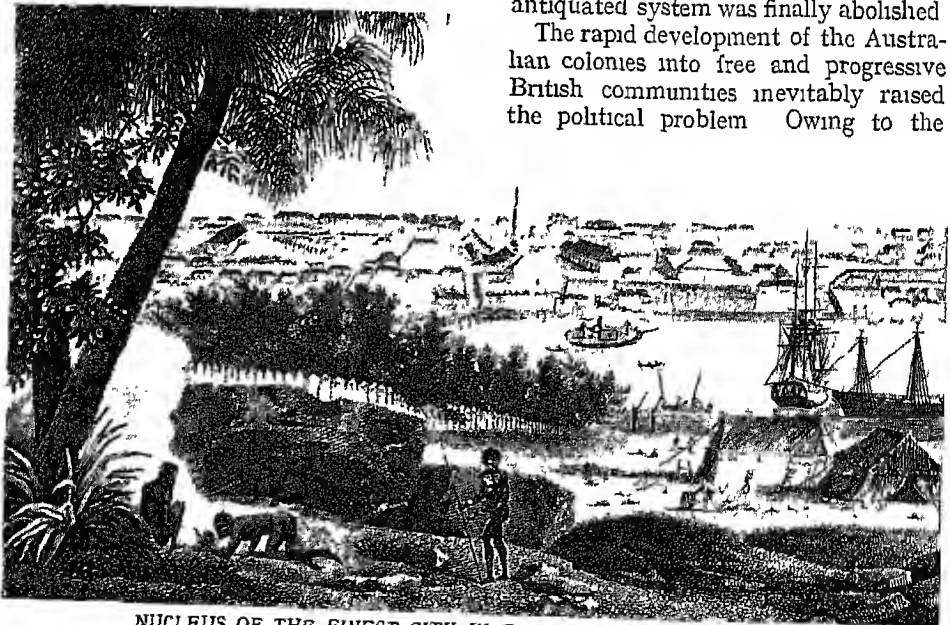
EAGER PARTICIPANTS IN THE SEARCH FOR GOLD AT PORT PHILLIP

The Australian gold discoveries of 1851 brought a host of immigrants to seek their fortunes in the colonies. The Illustrated London News on July 3 1852 published this picture of men at work in the Forest Creek Diggings of Mount Alexander Port Phillip. It shows operations being pursued with great energy. In the right hand corner two native mounted police, members of a corps established not twelve months earlier, regard the animated scene with interest.

their fortunes at Bendigo and Ballarat. So industry was added to agriculture, and an urban population grew up in the chief towns which was presently to equal and surpass the rural population. Meantime,

the only obstacle to the natural evolution of a normal social life had been removed. The transportation of convicts to Sydney was stopped in 1840, and confined thereafter to Tasmania until, in 1853, the whole antiquated system was finally abolished.

The rapid development of the Australian colonies into free and progressive British communities inevitably raised the political problem. Owing to the



NUCLEUS OF THE FINEST CITY IN THE AUSTRALIAN COMMONWEALTH—

Sydney, on the east coast of Australia, was founded by Captain Arthur Phillip in 1788 and was named after Viscount Sydney, who was British colonial secretary at the time. Sydney's advantageous situation on the south shore of Port Jackson, a magnificent natural harbour, favoured its rapid expansion along the coast and inland. Beautiful beaches and a mild climate attract many residents.

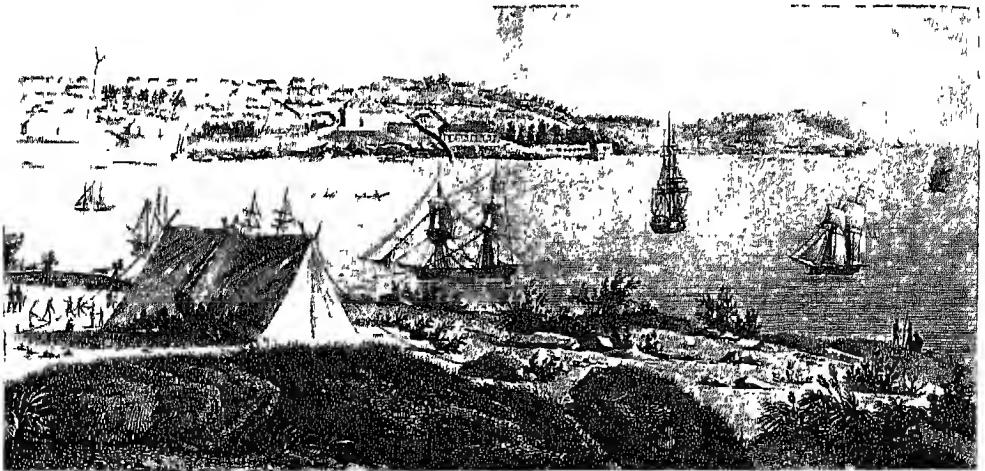
From Perou et Freycinet—

nature of its origin New South Wales had begun with a purely military government, and it was not till 1842 that representative government, which was conceded to Canada as early as 1791, was partially introduced. But the next stage was carried with a rush, mainly owing to the acceptance of Duham's Canadian policy. In 1850 New South Wales, Tasmania, South Australia and Victoria were invited practically to draft their own constitutions, and the result was the establishment of virtually the same system as existed in Canada, with responsible government as an essential part thereof. It was extended to Queensland when it was cut off from New South Wales in 1859, and to Western Australia, where colonisation and development proceeded more slowly, in 1890.

But the advance to the next stage, the pan-Australian stage, was not so swift. Canada passed from responsible government to national government in twenty years (1846-1867). Australia took fifty years. The reason for this difference was partly that New South Wales, being much the largest of the states (as the colonies were called instead of 'provinces'), did not wish to share her functions of self-government with her smaller sisters in a federal system, while they on their part did not wish to be dwarfed by New South

Wales, and partly that the unifying factor of a contiguous foreign power, so influential in Canada, was absent in Australia. Thus, although the other arguments for union—the need for common action as to tariffs, ports and communications, and the linking together of the continent, disjointed more seriously than Canada by the great arid central wastes—were obvious, the jealous aloofness of the individual states delayed the inevitable step.

That, at last, the step was taken was mainly due to two factors: first, the fear that the teeming population of Eastern Asia might spill over into Australia, the determination to prevent this intrusion and to keep a 'white Australia' free from the well known difficulties, social, economic and political, which arise from the mingling of white and coloured races in one land, and the conviction that the task involved therein—to open up, to people, to consolidate a vast continent—demanded the united efforts of the whole nation; secondly, the appearance in the South Seas of rival colonising powers, and particularly of Germany, which in 1883 annexed a 'place in the sun' in the neighbouring island of New Guinea. Under these influences a pan-Australian convention met in 1891 and drafted a



—SYDNEY AS IT WAS SEVENTEEN YEARS AFTER ITS FOUNDATION

The panorama above gives a view of the southern portion of the town (left-hand page) and the mouth of the Parramatta river as the site appeared in 1805. As early as 1793 emigrant ships had been arriving with free settlers who were given free grants of land, and by the end of the eighteenth century the population numbered 5,000. In the census of 1921 it had risen to over 900,000.

— *Voyages aux Terres Australes* —



BUILDERS OF EMPIRE IN NEW ZEALAND

A keen student of colonial problems, Edward Gibbon Wakefield (left), 1796-1862, became managing director of the New Zealand Company in 1837, and by his action in 1839 forestalled the French in annexing New Zealand. Sir George Grey (right) twice served New Zealand as governor, and from 1877-84 was premier.

National Portrait Gallery, London and (right) from Gudgeon, 'War in New Zealand'

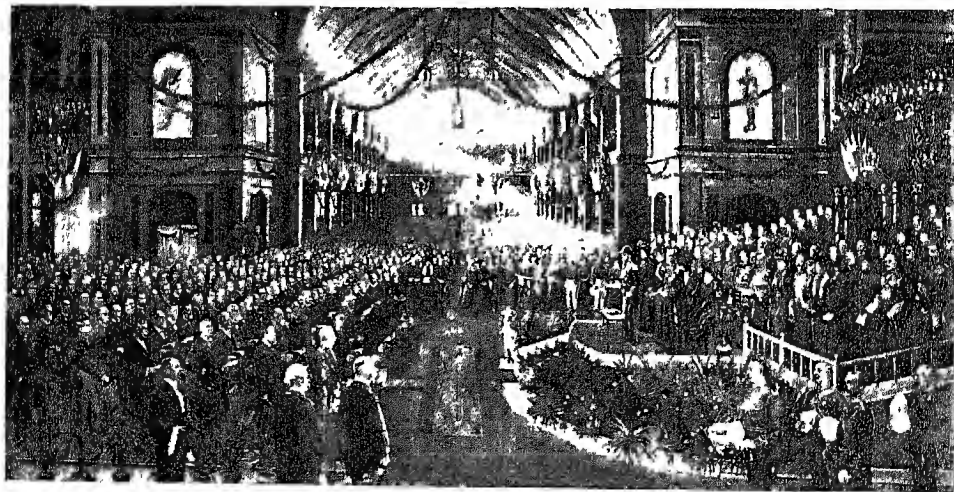
federal bill; but even then the states, voting separately, rejected it.

In 1897, however, a convention met again, and this time the states accepted the bill, which was embodied by the Imperial Parliament in the Australian Commonwealth Act of 1900. It bore on its face the traces of its slow and difficult birth; for the states had insisted on retaining more independence than the

provinces retained in Canada, and so weakening the power of the federal government. But such defects, which can and will be remedied in time, were of minor importance compared with the fact that the Commonwealth of Australia entered the twentieth century as a united nation, side by side with the Dominion of Canada. And, as in Canada, national development followed fast on union. A transcontinental railway began to span the gulf between east and west (it was completed in 1917), and another line was put in

hand to link the south with the luxuriant semi-tropical northern territory. Plans for closer settlement were adopted, irrigation extended, immigration encouraged and organized. By 1914 Australia contained a big-built, virile, adventurous population of about five million, mainly of British and Irish stock.

Some 1,200 miles south-east from Sydney the two islands of New Zealand



A GREAT DAY IN MELBOURNE : THE AUSTRALIAN COMMONWEALTH PROCLAIMED

The union of Australia was finally achieved as the result of the conference held in 1899 between the premiers of the Australian states. A bill was submitted to the British Parliament, and on January 1, 1901, it was proclaimed that the people of New South Wales, Victoria, South Australia, Queensland, Tasmania and Western Australia were united into the Commonwealth of Australia. This drawing shows the duke of Cornwall and York opening the first Commonwealth parliament on May 9

Courtesy of Australian Commonwealth Government

offered a second field of colonisation in the Southern Seas, no less fertile and salubrious than Australia. But its only colonists for many years after the foundation of New South Wales were migrant whalers and traders and fugitive convicts from Sydney. Unlike Australia, where the primitive aborigines were few and feeble and withdrew before the white man into the wilderness, New Zealand contained a vigorous native population of at least 100,000, mainly settled in the North Island. It was of good omen for the future of British colonisation in the country that the Maoris, though they retained some barbarous customs, were by no means barbarians, but in many respects a cultured and attractive people, capable of assimilating the white man's civilization. They were also a warlike people, and it was the inevitable friction and fighting between them and the earlier British settlers over the ownership of land that induced the government reluctantly to annex New Zealand in 1839.

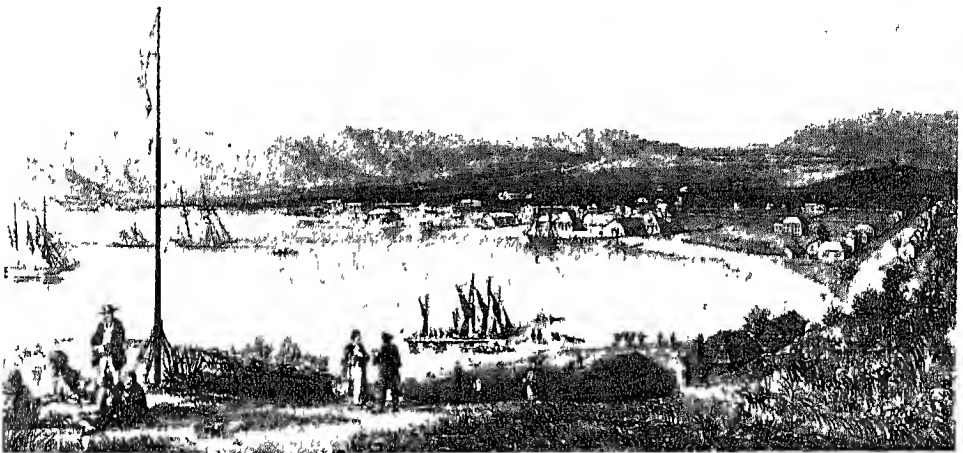


POWERFUL MEMBERS OF THE MAORI TRIBE

Colonisation of New Zealand was impeded by the opposition shown to the intrusive white man by Maori tribes already in occupation of the country. Two bitter wars ensued before the power of the stubborn native chiefs, of whom these two specimens are representative, was finally subdued.

From Gudgeon, Reminiscences of the War in New Zealand.

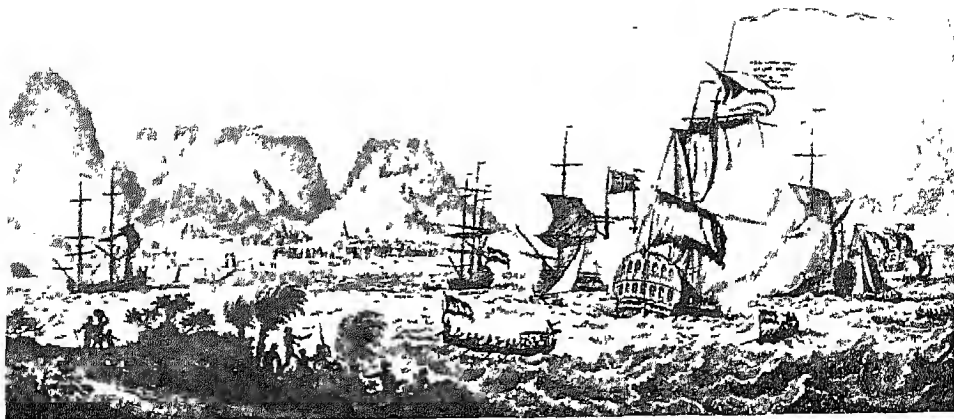
In the same year the New Zealand Company, the offspring of the enthusiasm and energy of Gibbon Wakefield, who had also taken the lead in the colonisation of South Australia, planted a colony at Wellington, destined to be the national capital. In 1840 the Treaty of Waitangi opened the way to a settlement with the Maoris. At first it was misinterpreted. Some of the colonists infringed Maori



WELLINGTON, CAPITAL OF NEW ZEALAND, IN 1843

The first settlement of New Zealand colonists was made at Wellington, founded in 1840. It is situated on the north-west shore of North Island and possesses a fine harbour. Wellington replaced Auckland as the seat of government in 1865 being selected by three Australian commissioners as occupying the best site on Cook Strait. This view shows Te Aro Flat in 1843.

From Shrimpton, 'Maori and Pakeha'



WHERE BRITISH EMPIRE IN SOUTH AFRICA BEGAN

The Cape of Good Hope was discovered and given its name by the Portuguese in 1488, and a Dutch settlement was first made there in 1651. In 1814 it was ceded to Britain, who regarded it primarily as a useful calling station on the sea route to India, and its earliest British settlers arrived there in 1820. Its possession proved finally to be the initial stage in Britain's colonisation and expansion in South Africa. This Dutch engraving shows the tiny town beneath the slopes of Table Mountain.

From 'Beschryving van de Kaap,' 1777

rights. Some of the Maori tribes revolted. But in 1845 Sir George Grey, one of the greatest 'proconsuls' of the nineteenth century, having fulfilled the task of saving South Australia from its early economic difficulties, was transferred to New Zealand, and, taking his stand on the treaty, he succeeded by mingled firmness and conciliation in restoring peace.

But the quarrel was not yet dead. The Maori chiefs of the old generation refused to acquiesce in the white man's occupation of their country. The colonists, on their part, became impatient of conciliatory methods. And when Grey

Maori situation in New Zealand had been called away to yet another imperial task in South Africa, war broke out afresh. In 1860 Grey returned; but this time the war smouldered on till in 1866 the power of the Maoris was broken, and in 1870 a permanent peace established. The old conflict thus at last abandoned, the Maoris settled down in that half of the North Island which remained to them. In course of time they were accorded equal political rights with the British; and, with their social adaptability and their gifts of speech and song, they contribute an interesting and harmonious element to New Zealand life.

The Maori trouble ended, social and political progress in New Zealand was as rapid as in Australia. From the sea-coast towns of Wellington, Auckland, New

Plymouth and Napier in the North Island, and Nelson, Dunedin and Christchurch in the South Island, the colonists spread out over the plains and upland valleys of the interior, breeding sheep and cattle, raising corn and fruit, exploiting minerals and developing industries. But the sense of provincial separatism never developed so strongly as in Australia. As early as 1852 a federal constitution was set up, and in 1875 even that measure of local differentiation and independence was supplanted by a unitary constitution such as that of Britain. Nothing could be stronger, on the other hand, than the feeling that this homogeneous New Zealand was different from and independent of Australia. Her white population, drawn more exclusively than in any other colonial group from Britain, her sentiment towards the motherland more deeply rooted, her people naturally similar to and yet easily distinguishable from Australians, New Zealand was determined to develop her own distinct nationality and shape her own destiny in the South Seas. The suggestion that she should enter into an Australasian Federation was therefore rejected; and in 1907 the Dominion of New Zealand became a separate nation of the Empire.

In Australia and New Zealand, with the exception of the Maori wars, the story of national construction is one of smooth and steady progress. The building of a nation in South Africa, on the other hand, was

only accomplished after generations of schism and strife. When the Dutch colony at the Cape of Good Hope was annexed by Britain at the close of the Napoleonic wars it was still regarded as primarily a strategic post on the sea route to India.

The Dutch, it is true, had already begun to 'trek' away from Cape Town and settle with their flocks and herds in the outlying districts of Cape Colony; but the idea that the European race was destined to penetrate and occupy the great upland 'veldt' in the interior was in nobody's mind; and when, in 1820, a settlement of British colonists was planted in the eastern part of the colony, its purpose was not expansion but the need of peopling and defending territory already partly colonised.

This need of defence arose from the greater of the two questions that have dominated the history of South Africa—the native question. Less fortunate than the invaders of Australia and New Zealand, the South African colonists found the country occupied by three kinds of native races—the primitive bushmen, who faded away before them like the Australian

aborigines; the Hottentots, a more advanced race, but also relatively feeble and non-resistant; and the Bantu (or Kaffirs, as the colonists called them), a very different people or group of peoples, prolific and powerful, yet quite uncivilized and, except, as with the Zulus, for purposes of war, undisciplined. Successive waves of these Bantu were rolling down the eastern side of South Africa at the very time that the Dutch colonists were moving upwards. A conflict was inevitable. The treatment of this conflict, the framing of a native policy, was the primary task of the government responsible for Cape Colony.

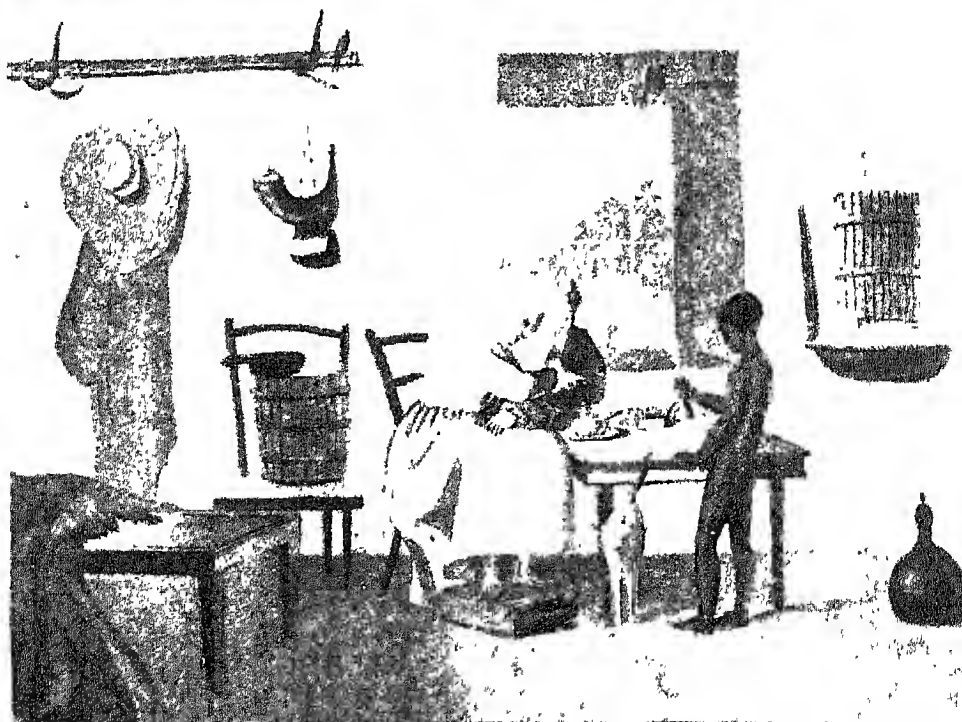
Unfortunately, it was the British government's native policy that created, or at least intensified and perpetuated, the second great question—the Anglo-Dutch question. Now, if the native question were to be rightly settled, there should have been no Anglo-Dutch question. In other words, it was essential that the two European peoples should assume a more or less similar attitude to the natives and pursue a common and consistent policy. But circumstances forbade it. Most of the Dutch colonists were farmers (Boers) who had gradually drifted



KAFFIR WARRIORS WHO IMPERILLED AFRICAN COLONIAL LIFE

The colonists who settled on the eastern side of South Africa soon came into conflict with natives of the savage Kaffir tribes. Farmers lived in perpetual dread of sudden raids, which destroyed their cattle and their crops and incurred famine and ruin. Throughout the greater part of the nineteenth century there was intermittent warfare between the black men and the colonists who sought a livelihood in the territory. The last Kaffir war ended in their defeat in 1878.

From Samuel Daniell, 'African Scenery,' 1804.



SCENES OF BOER LIFE IN SOUTH AFRICA

The tendency of South Africa's Dutch farmers (Boers) was to trek ever farther north from Cape Town, thus retaining the simple habits and outlook of their ancestors and differing widely from the colonists who penetrated the continent in later times. The aquatint after Samuel Daniell shows a Boer's wife drinking her coffee in homely surroundings, while a native servant fans her. Top (also by Daniell). A Boer's family halts for rest on one of the long journeys that their race so frequently undertook.

From Samuel Daniell, 'African Scenery,' 1804, and (bottom) Barrow, 'Travels,' 1806

away from Cape Town, their only link with Europe, and in their lonely, isolated life remained, so to speak, in the atmosphere of the seventeenth century. Simple, hardy, hospitable folk, clinging strongly to their Calvinistic faith, and to the Old Testament as much as to the New, they came to conceive themselves, as they penetrated farther and farther into the unknown, to be a chosen people entering their promised land. And almost inevitably they regarded its native inhabitants as ordained to be their 'hewers of wood and drawers of water.' Slavery, for example, seemed to them a right and natural dispensation and though they did not treat their slaves or hired labourers with the brutality of British slave traders, they looked on them as unalterably their inferiors and subjects.

The British colonists, on the other hand, came straight from the European civilization of the nineteenth century, and from a country which had recently taken the lead in transforming the old ideas about the relations between the white and coloured races of mankind. The individual Briton in South Africa may not have been particularly enlightened in this matter, but the government at least was pledged to the new humanitarian ideals, and among the individual immigrants were some of the earliest and most zealous servants of the new missionary societies which, under the impulse of men like Wilberforce, had been formed to advance those humanitarian ideals in the religious field. Was not a conflict between Boer and Briton, then, almost as inevitable as the conflict between European and Bantu?

Before the native question came to a head friction had already developed between Dutch and British. Curiously enough, the British statesmen who dealt

with the Dutch colony acquired in 1815 were far less successful than their predecessors who had dealt with the French colony in 1763, although the Dutch South Africans were far more nearly akin to the

British in race and in their Protestant religion than the French Canadians. The old Roman Dutch law was retained, indeed; but the imposition of English forms of justice and local government, and of English as the official language, seemed to threaten the survival of Dutch nationality. The opening of any deep and lasting breach, however, might well have been avoided but for a succession of events in the field of native policy.

First came the missionaries, horrified at the degraded status of the natives, impulsively taking up their grievances, repeating their stories—sometimes false and often exaggerated—

of cruel treatment at their masters' hands, and appealing to influential friends in London. Next, in 1828, came a government ordinance giving a greater measure of equality and freedom

to the Hottentots than they had ever known. Next, in 1834, came a

heavier blow; for in that year (as will be seen) the British Parliament abolished slavery throughout the British Colonies. Thus, at a stroke, the Boers were deprived of a substantial part of their property—nor, owing to a faulty system of payment, did they receive their due share of the money voted for their compensation—and of their available supply of agricultural labour.

Last, and worst, came a decision by the British government that could only be interpreted as a sacrifice of the colonists on the north-east frontier to the Kaffirs. More than once there had been fighting



SIR BENJAMIN D'URBAN

Just administration of Cape Colony during his four years' governorship which he began in 1834 won for Sir Benjamin D'Urban (1777-1849) the approval of both British and Dutch

From 'The Times History of the War in South Africa'

The Boers and the native question

and blushed along the line where the British colonist and Kaffir met and met after a Kaffir invasion in which many colonists had been killed and then named after Sir Benjamin D'Urban, the governor had determined that the most practical method of preventing future incursions was to annex a portion of Kaffraria and constitute it a kind of unoccupied buffer state between the two. In 1835 the colonial secretary Lord Glenelg, an earnest disciple of the humanitarian school, reversed this decision. The Kaffirs, he believed, were right in the quarrel; the colonists were wrong. The annexed territory was retitled. But to the colonists this policy seemed worse than futile, since the Kaffirs would regard it as a sign of weakness rather than of justice or generosity and would thus be incited to renewed aggression, and for many of them it was the last straw. In 1836 and the following years some ten thousand of the more adventurous Boers, taking their slaves with them, their big wagons loaded with household goods, trekked away over the colonial frontier into the no man's land of the interior.

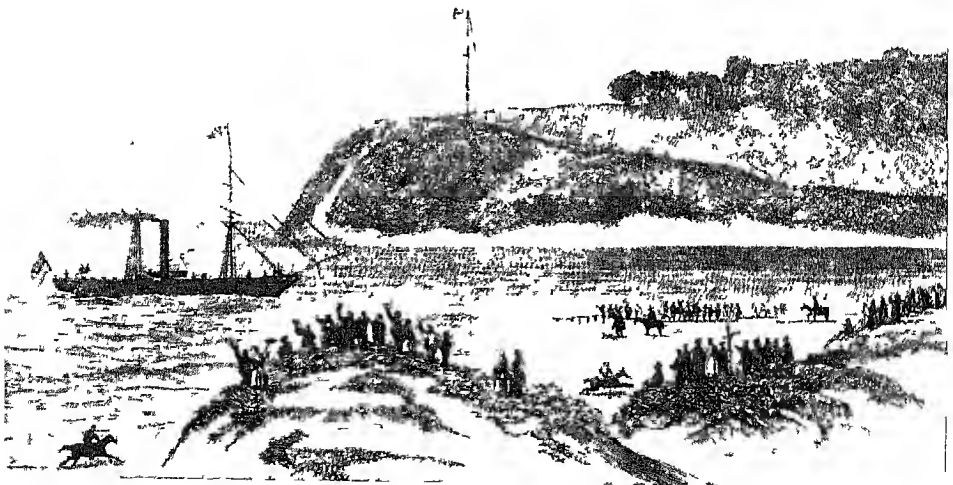
What was the British government to do? The Boer trekkers had thrown off their allegiance to the British crown

and refused to submit to its authority. They were determined to maintain independent republics of their own and to deal with the native tribes within and without their borders as they pleased, without considering the effects of their policy on the relations between the natives and Cape Colony.

Policy towards the Trekkers

But the only way of preventing this was to follow up the Boers with a large military force, to declare the territory they had occupied to be British territory, and to compel their submission to British rule. If, however, as was probable, the Boers retreated farther and farther into the interior, were they to be pursued into the tropical heart of Africa? What limits could be set to the time and cost involved? Confronted by this dilemma, successive British governments tried first one policy and then another. But vacillation was worse than useless, the schism deepened.

At the outset, after some hesitation, a forward policy was adopted. Port Natal, afterwards called Durban, had been occupied by a few British traders and since it was easy of access by sea, the port and its hinterland up to the Drakensberg Mountains were annexed in 1842 as the colony of Natal. The majority of the



AT PORT NATAL IN THE EARLY YEARS OF BRITISH RULE

The arrival of the first steamer, the *Sir Robert Peel* at Port Natal, the harbour of Durban, in 1852 was greeted with wild excitement by the inhabitants and is the scene represented in this drawing from a contemporary newspaper. English colonists had arrived at Port Natal in 1824 and laid out Durban in 1835. It passed into Dutch hands for a few years but a British military force under Sir Benjamin D'Urban occupied it in 1842, and British sovereignty was recognized by treaty.



DIGGING FOR DIAMONDS AT KIMBERLEY, SOUTH AFRICA

On a site then known as Colesberg Kopje in Griqualand West between the Modder and Vaal rivers, diamonds were discovered in 1870. Possession of this valuable property was disputed between the British government and the Orange Free State, the former finally taking it under British protection in 1871. The mine and later the town were named Kimberley after the British colonial secretary.

This view of mining operations in Kimberley is from a wood engraving published in 1872.

trekkers who had settled there migrated in high dudgeon, into the interior. Then in 1848, with the consent of some, but not all, of the trekkers therein, the area between the Orange and Vaal Rivers was annexed as the Orange River Sovereignty. But friction continued and the tide turned in favour of leaving the Boers alone. So in 1852 the Sand River Convention recognized the independence of the Boers in the Transvaal under the leadership of Pretorius, and in 1854 the Convention of Bloemfontein recognized the independence of the Orange Free State. There were thus four political units now established in South Africa—two British colonies and two Boer republics—and the prospect of national unity seemed almost to have disappeared.

One chance, perhaps, was still open—a federation by mutual agreement, and, when Sir George Grey arrived from New Zealand, he determined to try it. He

might have succeeded in 1858 in at least the first step by persuading the friendlier of the two republics, the Orange Free State, to federate with the two colonies, but government opinion in Britain was still on the backward path and the proposal was abandoned. So the separation continued, and the evils of it became more and more apparent. There was continual trouble with the natives, especially the Basutos. There was friction between the Transvaal Boers and British missionaries pushing up, with David Livingstone at their head, along the western frontier of the republic towards Central Africa. There was a dispute between the Orange Free State and the British government, rather dubiously settled in the latter's favour, as to the ownership of the border land at Kimberley in which diamonds had been found.

Finally, in 1874, Lord Carnarvon resumed the forward policy. Having

assisted in Canadian federation, he drafted himself a measure for federating South Africa and sent over Sir Bartle Frere to work for its adoption at the Cape. Again, however, the proposal failed, partly, no doubt, because it had originated outside and not inside South Africa. But the forward policy was still in the ascendant, and when, as it happened, the Transvaal was threatened not only by a collapse of its finances but also by attack from the militant and powerful Zulus on its borders, a British mission was sent to Pretoria and the republic annexed to the British crown (1877).

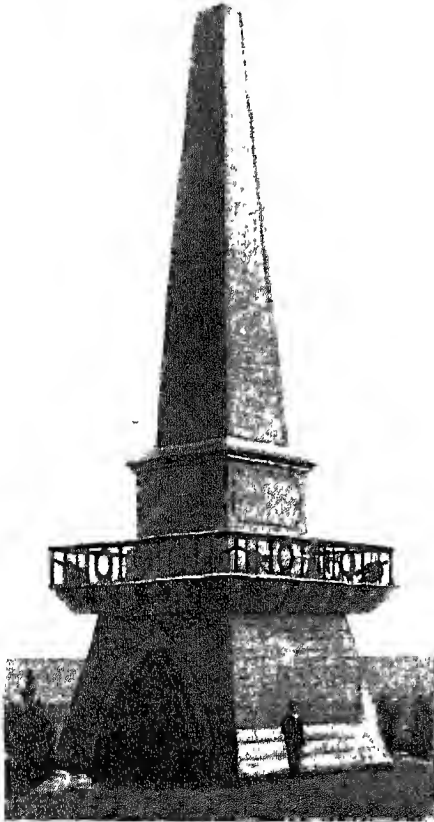
The next event was an almost inevitable war between the British and the Zulus, in which, after a terrible British defeat at Isandhlwana, the Zulus were finally



SIR BARTLE FRERE

Appointed high commissioner of South Africa in 1877, Sir Bartle Frere (1815-84) failed to bring Lord Carnarvon's scheme of confederation to fruition. His conduct of affairs evoked government censure and he was recalled in 1880.

Photo, Elliott & Fry



BOER MONUMENT OF INDEPENDENCE

This monument, the Paarde Kraal, was raised at Krugersdorp by the Boers as a commemoration of the independence of the Transvaal recognized in 1881. It is regarded, however, as the symbol of their victory at Majuba Hill.

crushed (1879); whereupon the Transvaal Boers, relieved of their danger and resenting the annexation to which most of them had never assented, rose in revolt and defeated the small British force dispatched against them at Majuba (1881). At once British policy swung back again; and by the Conventions of Pretoria (1881) and London (1884) the Transvaal was recognized as the independent South African Republic, under the vague suzerainty of the British crown. So in 1884 the position was the same as it had been in 1854, except that it was now worsened by bitterness and bloodshed. Many of the Boers, moreover, had been convinced that, if ever they were forced to fight again, they would win again.

The last chapter of the unhappy story now opened with the discovery of gold along the great reef at Johannesburg (1884-5). The result, as in Australia, was an invasion of European immigrants and the development in the heart of an

old-fashioned, agricultural or pastoral community of a great modern industrial centre. To Paul Kruger, president of the Republic and a typical representative of the old trekker tradition, and to the more conservative of his Boer 'burghers,' this invasion was disturbing and distasteful; and, while the taxation of the Uitlanders (foreigners) soon provided a far bigger revenue than it had ever enjoyed before, the government refused to admit them to citizenship and the franchise, at least until they had resided in the country for many years. The Uitlanders protested. They were taxpayers. More, they were, for the most part, British subjects. And what did British 'suzerainty' mean if the interests of British subjects were not to be protected? It was a deadlock, and this time there seemed no escape.

Men began to talk of an impending conflict, the result of which was to be, according to the talker's nationality, a purely Dutch or a purely British rule over all South Africa. And, if on the one side Kruger's obstinacy was reprehensible, a terrible blunder was presently committed by the leading figure on the other side, Cecil Rhodes, who had made a great fortune in diamonds and gold and had become prime minister of Cape Colony. Convinced that his dream of a united South Africa could never be realized as long as the Kruger regime continued in the Transvaal, he allowed himself to be secretly associated with a plan for a rising in Johannesburg which aimed at the establishment by force of a more liberal government at Pretoria. Unfortunately for Rhodes and British honour, at the beginning of 1896 his lieutenant, Dr. Jameson, learning that the plot had miscarried, decided on his own initiative to make a dash for Johannesburg with the volunteer troops in his charge. The surprise failed; Jameson and

his troops were surrounded and captured by the Boers; and, after an anxious interval, they were handed over to the British government, by whom they were leniently punished. Rhodes was forced into retirement.

And now the shadow of war drew nearer. While Kruger imported artillery from Europe by a railway which he had promoted from Pretoria to the Portuguese port at Lourenço Marques, the British government continued to urge him to concede the franchise to the Uitlanders as the only means of maintaining peace, and in 1898 sent out the able Sir Alfred Milner as high commissioner to try to secure a settlement.

In 1899 negotiations failed, and in the autumn the second Boer War broke out. The rights and wrongs of it will probably



REACTIONARY PRESIDENT OF THE TRANSSVAAL

The Boer politician Paul Kruger (1825-1904) became president of the Transvaal in 1883 and was re-elected in 1888, 1893 and 1898. A strict conservative, he resisted reforms and his conduct of negotiations with Britain regarding the unenfranchised Uitlanders in the Transvaal led to the South African War.

From 'The Times History of the War in South Africa'



LEADER OF THE JAMESON RAID

A close friend of Cecil Rhodes, Dr. Leander Starr Jameson (1853-1917) was appointed administrator of Rhodesia in 1891. In 1895 he organized his disastrous invasion of the Transvaal that was 'severely censured' by the colonial office.

Photo, Elliott & Fry

be always a matter of dispute. Some will think that the British government, with an eye, perhaps, to its mineral wealth, was determined to bring the little republic within the frontiers of the Empire. Others will think that the conflict was justified by the grievances of the Uitlanders, by the notorious corruption and misgovernment of the Kruger regime and by the probability that, if the issue were not settled once and for all, the Dutch would have seized a favourable opportunity, say in 1914, to attack and dominate the British. Others, again, will think that there was right and wrong on both sides and that, in any case, the war was unavoidable. But all will agree, whatever their opinions as to its cause, that its chief effect was to make possible at last a united South Africa. And all will agree that, whatever the mistakes of earlier times, this final opportunity was quickly and wisely used.

So the last tragic chapter had a happy ending. After three years of war, which had proved a far longer and costlier struggle than anyone had expected, a peace treaty was signed at Vereeniging

(1902) by which the republics accepted British sovereignty, but with a promise of self-government in the near future. In 1907 the British government boldly decided that the time was already ripe; and responsible government, which had been instituted in Cape Colony in 1872 and in Natal in 1893—the delay being mainly due to the native question—was conceded to the two ex-republics. Encouraged by this gesture of trust and friendship, the Boer leaders, Botha and Smuts, more liberal-minded men than their old chief, who had retired to Holland during the war, agreed with the British leader, Jameson, who had outlived the scandal of the raid and was now prime minister of Cape Colony, to work for union. In 1908 a conference of delegates from the four colonies met and in 1909 completed a draft of a constitution which, with slight amendments, was accepted by the four legislatures.

Because South Africa, though it had needed unity so much, had been so deeply divided, it was agreed that the unity now at last achieved should be as complete as possible. The constitution, therefore,



CECIL JOHN RHODES

In 1890 Cecil John Rhodes (1853-1902), whose dearest dream was of an 'Africa British from the Cape to Cairo,' became premier of Cape Colony. His connivance in the plot that gave rise to the Jameson Raid compelled his resignation in 1896

Photo, W. & D. Downey

was unitary and not federal, the sometime colonies and republics becoming provinces with minor powers. It also provided that the native protectorates of Basutoland, Bechuanaland and Swaziland should continue under the old direct administration of the imperial government until they could be handed over on certain conditions to South Africa. This constitution was quickly passed through the Imperial Parliament as the Union of South Africa Act; and in 1910 General Botha, so recently the ablest of Britain's enemies in the field, took the oath as first prime minister of united South Africa.

Thus, by 1914, the groups of British colonies in Canada, Australia, New Zealand and South Africa had grown into self-governing nations. It remains to answer certain questions as to their political status.



PROMINENT BOER LEADERS

Notable among those generals who commanded the Boers in the war of 1880-81 were (top left) General Joubert, the victor of Majuba, (right) General Cronje; (bottom left) Commandant Hans Botha and (right) General Nikolaas Smit.

From 'The Times History of the War in South Africa'



GENERAL LOUIS BOTHA

In the South African War of 1899 Louis Botha attained chief command of the Transvaal Boers and influenced their acceptance of the peace of Vereeniging in 1902. In 1910 he became the first premier of united South Africa.

Photo, Langfier

For many years the process of political evolution seemed to have halted at 1867. The example of Canada in attaining responsible government and national government and in securing control of her own commercial and fiscal policy was followed in due course by each of the other Dominions. But there remained in the list of fields of government reserved by Durham for sole control by Britain the two most important fields of all—the fields in which the issues of freedom itself and of life and death might be raised—defence and foreign policy. As long as these vital matters were dealt with only by the British government over the heads of the Dominions, they were still in some degree 'dependencies.' Sooner or later this last inequality had to be adjusted if the Empire was to endure.

But the process was very gradual because the peoples of the Dominions were far more interested in the immediate task of developing their own new countries than in the course of events in old and far-off Europe with which British foreign policy was mainly concerned; and, conscious of their youth and their inexperience in the intricate business of

Political Evolution in the Dominions diplomacy, they were quite content to leave their destiny in the hands of the British foreign office and under the shield of the British navy. Some forward steps, however, were taken. It was soon evident, for instance, that colonies could not be regarded as self-governing unless they undertook the primary duty of their own local defence. In 1870-1, therefore, the garrisons of British regulars were withdrawn from all the colonies except South Africa; colonial troops were organized to take their place; and, while Canada remained content with a mainly voluntary militia system, the other three Dominions, after achieving national unity, created national defence forces on a basis of compulsory military service. Canadian and Australian contingents volunteered for service in the Sudan campaign of 1884, and some 30,000 Canadians, Australians and New Zealanders took part in the Boer War of 1899.

Meantime the colonies had begun to share also in the burden of naval defence. At first they contributed annual sums towards the cost of the British navy besides maintaining small local ships for police and training purposes. But during the 'navy scare' of 1909 New Zealand made an advance on this method by supplying a battleship of her own to the imperial fleet. Finally, by 1914, Australia and New Zealand had decided to provide and maintain first-class warships as local Dominion squadrons, and Australia already possessed one battle-cruiser, two cruisers and some smaller vessels.

Meanwhile the question of foreign policy, on which the use of these military and naval forces depended, was gradually coming to the front. As the colonies grew out of tutelage, as they became dominions, they were bound to enter into relations with foreign countries on their own

account and not merely through British mediation. The results of this were first apparent in the commercial field; and Canada, the elder sister, leading the way, obtained first the right to share with British representatives in negotiating commercial treaties with foreign governments, and finally the right to negotiate and conclude such treaties by herself. Commercial relations may involve political relations; and it was but one step further for Canada to share in the negotiation of political treaties, though only, to begin with, in those that directly concerned her local interests, such as the Alaska boundary treaty with the United States (1903).

At that point the process of advance had halted by 1914. Outside these special treaties, in the general field of foreign affairs, the Dominions still played little part. **Dominions and Imperial Defence** On the organization of the defence of the Empire

as a whole, they had, it is true, been consulted for many years past. Colonial representatives sat from time to time on the Committee of Imperial Defence; and it was primarily for the same purpose that the first Colonial Conference was held in London (1887). Similar conferences were held in 1894, 1897, 1902 and 1907, and on this last occasion it was decided that the Conference should meet at regular intervals of four years. It was also decided—and it marked an advance towards equality—that the conference, which was now to be called the Imperial Conference, should consist of the prime ministers of Britain and the Dominions on an equal footing, with the British prime minister (and not, as heretofore, the colonial secretary) as *primus inter pares* in the chair.

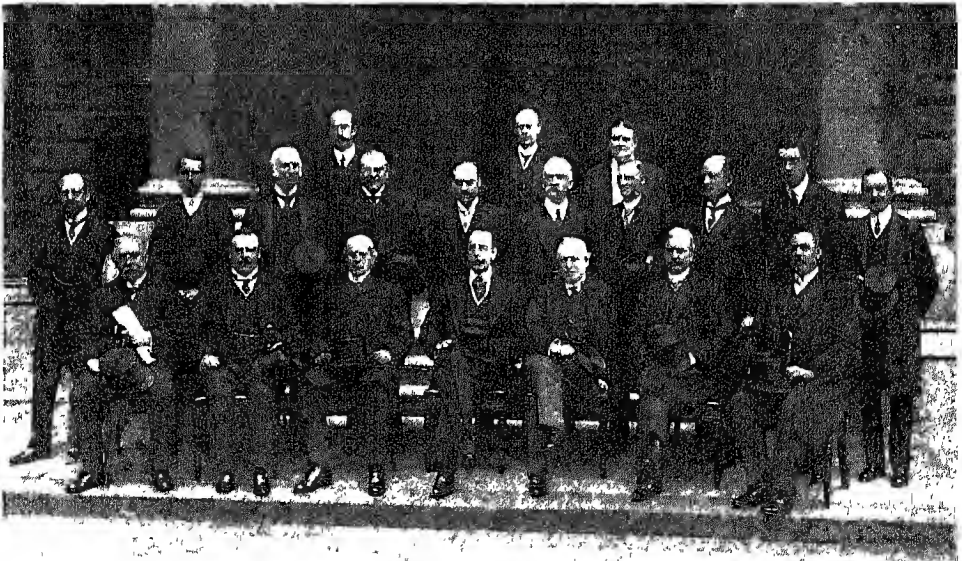
It is somewhat remarkable that, while these conferences dealt with all other matters of common interest, they never dealt with foreign policy. It was not till 1911, the last conference before the Great War, when the clouds were already gathering over Europe, that the British foreign secretary informed the Dominion prime ministers as to the secret facts of the international situation. Even then they were only informed and not consulted; and when the prime minister of New Zealand

suggested that an Imperial Council should be formed for the joint control of foreign policy, he received no support from his colleagues, who agreed with the British prime minister that the British government could not share its responsibility with other governments. And so, when the Great War came, the Dominions were involved in it without ever having had a voice in the shaping of the policy that had led up to it.

But it, in this last surviving point, they were still not equal in status with Britain, they willingly accepted their position and never asked for more. There was nothing, therefore, to mar the grand demonstration of imperial unity which followed the outbreak of war. In 1914 the success of the second attempt at maintaining a community of British peoples, divided by the seas, within one great political society was shown to all the world to be no less complete than the failure of the first attempt in 1783.

In the course of the Napoleonic wars (as has been seen) the British Empire in India had been extended and consolidated ; and the security of the sea route from

Britain was confirmed by the acquisition of Cape Colony, Mauritius and Ceylon. In the early years of the peace this ring of strategic posts was further strengthened by developments in the East Indies. The British Empire Dutch, back in Java, had in the East quickly reasserted their monopoly over the Malay Archipelago ; but they had not yet occupied the Malayan mainland, except at Malacca, when, in 1819, Sir Stamford Raffles was commissioned by Lord Hastings, governor-general of India, to find a suitable port in those waters as a base for British trade with Farther Asia. He found it at Singapore, at the extreme southern point of the Malay Peninsula, a perfect site for a commercial or naval base, dominating the route to China and Japan. By agreement with the local chiefs the British flag was hoisted, to the indignation of the Dutch ; and in 1823 a settlement was made by which the British exchanged their posts in Sumatra for Malacca so that the Dutch possessions were now limited to the islands and the British to the Malayan mainland.



THE LAST IMPERIAL CONFERENCE HELD BEFORE THE GREAT WAR

Originating in a meeting of representatives of self-governing colonies in London in 1887, the Imperial Conference was established as a quadrennial meeting in 1907. In this photograph of the Conference held in 1911, the premiers seated are, from left to right, Sir Edward Morris, Newfoundland ; Sir Joseph Ward, New Zealand ; Sir Wilfrid Laurier, Canada ; H. H. Asquith, Great Britain ; Andrew Fisher, Australia ; and Louis Botha, South Africa. Lewis Harcourt, colonial secretary, is in the centre.

Photo, Russell



VALUABLE BRITISH COLONY AND TRADING CENTRE: THE ISLAND OF HONG KONG, CHINA

A: the mouth of the Canton river lies Hong Kong, an island some ten miles in length by four and a half in breadth. By the treaty of Nanking in 1842 it was ceded to the British, who had taken possession the previous year. This view, taken about 1875, shows the town of Victoria resting on the slope of the hill, with massed shipping round the promontory. On the left is Morrison's Hill

From Singapore, which became in time one of the twelve greatest ports in the world, from Malacca and from the older post at Penang British trade and influence radiated over the peninsula; and in 1867 the three districts were united as one crown colony. In course of time, also, the native sultans accepted a British protectorate, Development of with British advisers Malay Peninsula at their courts, under the general supervision of the governor of Singapore, so that the whole peninsula became part of the Empire as British Malaya. The subsequent development of the country has been wholly beneficial to its people. The old piracy and warfare have been put down, roads and railways built, schools established; and the material prosperity of the country has been enormously increased by the development of tin mining and rubber planting, largely with the aid of immigrant Chinese labourers.

Meanwhile British trade with China was developing. The Chinese government at first confined it to Canton; but in 1841, after a period of friction and conflict, they ceded to Britain the island of Hong Kong as a commercial base. Inhabited at that time by only a thousand natives, it grew as a British colony and a free port, which, like Singapore, was open to all nations, into a great city and a great centre of trade. Its population to-day is about 900,000. In 1860, at the close of the so-called Opium War, other Chinese ports were opened by treaty to British trade, known as the 'treaty ports,' including such important entrepôts as Shanghai and Hankow, and lands were leased for the erection of commercial buildings and residences by British merchants—a precedent soon followed by other European powers.

One further field of Empire in the Far East was opened up in the nineteenth century. In 1842 a private Englishman, James Brooke, acquired a grant of land in the northern part of the great island of Borneo, the rest of which was occupied by the Dutch; and, having aided the native government of Brunei in the suppression of a rebellion, he was rewarded with the gift of the province of Sarawak, of which he and his descendants to this



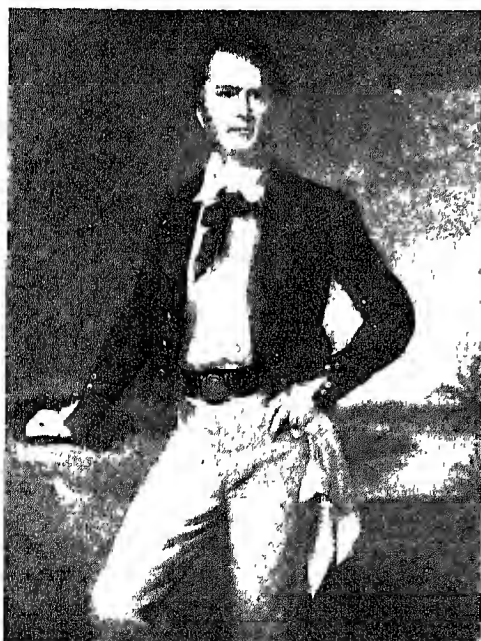
SINGAPORE, CHIEF OF THE STRAITS SETTLEMENTS

Its position midway between India and China renders Singapore, a town and island situated off the south extremity of the Malay Peninsula, of great value as a naval base and commercial centre. In 1824, five years after its foundation by Sir Stamford Raffles, it was formally recognized as a British settlement and developed into a port of vast importance. A coloured lithograph from the painting by J. T. Thomson gives a view of the town, about 1856, from Government Hill, now Fort Canning.

From Buckley, Anecdotal History of Singapore

day became the legitimate and hereditary 'rajas.' In 1888, under the second Raja Brooke, Sarawak became a British protectorate, retaining its own internal independence, an example followed in the same year by the neighbouring sultan of Brunei. Meanwhile, in 1881, the old

system of development by means of chartered companies was revived by the formation of the British North Borneo Company, which obtained the concession of the northern corner of the island. This territory was also placed under British protection in 1888. The only other



FOUNDERS OF EMPIRE IN THE FAR EAST

James Brooke (left, by Sir Francis Grant) visited Borneo in 1839, and, in return for crushing a rebellion that threatened the sultan of Sarawak, was created raja of Sarawak. The province later became a British protectorate. Sir Thomas Stamford Raffles (right, by Joseph) entered the service of the East India Company in 1795. He did distinguished governmental work in Java (1811-16) and in Bencoolen, Sumatra. In 1819 he accomplished the acquisition and founding of Singapore.

National Portrait Gallery, London

British foothold in the East Indies is the little island of Labuan, ceded in 1846 as a base for the suppression of piracy—the permanent curse of all the Malayan world until the British navy stamped it out.

Thus, as the century drew on, the British position in India was buttressed to the south-east by strategic and commercial posts in the area that lies between the Indian and Pacific Oceans and links Asia with Australia. But, when the Suez Canal was opened in 1869 and the course of shipping thus diverted from the Cape to the Red Sea and the Arabian coast, further safeguards were needed to protect the Anglo-Indian trade route, the most vital of the arteries by which the Empire lives. It was this need which led to the occupation of Cyprus in 1878—a foothold in the eastern Mediterranean, already guarded farther west

by Malta and Gibraltar—
Stations on the Indian route and which was the chief cause of the occupation of

Egypt in 1882. Between Egypt and India, Aden, a rocky little post at the eastern approach to the Red Sea, had already been ceded to Britain by the local Arab chiefs in 1838-9. In 1857 the island of Perim, in the very mouth of the Red Sea, was occupied. In 1884 Somaliland, on the opposite African coast, and in 1886 the island of Socotra, some 200 miles out in the Indian Ocean, became British protectorates. And when, finally, a British 'sphere of influence' was established at the mouth of the Persian Gulf, the protection of the route was complete.

Meantime, by the same almost inevitable process as before, the area of British rule in India had grown as far as it could grow. The purpose by which this rule was inspired, its methods, and the measure of success and failure attending them, may be studied in Chapter 166. The achievements of the period were more striking than those of any other period of the British Raj; but although when the war came Indian opinion as a whole rallied loyally to the defence of the British Empire, it was evident that the political problem had not yet been solved.

While, in the course of the century between 1815 and 1914, the British

Empire in Asia was being extended, consolidated and organized in accordance with the principles of a new age, the British Empire in the great central area of Africa was undergoing a still more drastic transformation. In 1815 it consisted of one little settlement of freed slaves and a handful of derelict slave-trade depots on the west coast, while the east coast and the centre of the continent were practically unknown to Europeans except for the remnant of the old Portuguese Empire in the province of Mozambique. In 1914 the British Empire included a great group of colonies and protectorates, in both the eastern and western parts of the tropical belt, covering a wider area than India and containing a population of between thirty and forty millions.

It was not till the latter half of the century that this remarkable expansion took place. At the outset it almost seemed as if the connexion of Britain with Africa had been severed for good and all by the abolition of the slave trade. There was one British foothold, however, on the west coast which was not concerned with the slave trade. In 1787 the group of philanthropists who were fighting the trade had obtained from the local chief the concession of some territory at Sierra Leone; and with the sympathy and assistance of the government they had established a colony there with the object, first, of providing a home for some of the negroes released from slavery by the Somerset judgement, and thrown on the world without any means of subsistence; and, secondly, of developing a legitimate trade in African produce as distinct from the nefarious slave trade.

When abolition had at last been carried (1807), Sierra Leone proved a useful base for the British cruisers engaged in suppressing the trade. It was converted into a regular crown colony and became the centre of British administration on the west coast. Mainly for the same reason the old depots along the Gold Coast and at the mouth of the River Gambia were maintained under government control. Before long British merchants were following the lead set by Sierra Leone and

developing a growing trade along the coast and up the rivers; and meantime the interior was being explored partly by adventurous traders like MacGregor Laird and partly by scientific expeditions under the government. Before 1850 the course of the Niger had been followed from source to sea and the desert tracks of the Sahara traversed from Lake Chad to the Mediterranean.

But, apart from exploration, the government took no share in the development of West Africa. In 1861 the island of Lagos, off the Nigerian coast, was annexed, but only as a means of destroying the nest of slave smugglers lodged therein. So far, indeed, was public opinion in Britain from harbouring ideas of imperial expansion that in 1865 a committee of the House of Commons actually recommended an ultimate withdrawal from all West Africa except Sierra Leone.

British trade, however, had already taken root. On their own initiative British merchants were steadily extending their operations into the interior. In 1879 the chief of them united to form the National African Company, which became in 1886 the Royal Niger Company; and their agents kept pushing up the Niger, making treaties of amity and commerce with the native tribes on its banks.

Meantime, from 1870 onwards, the whole situation had begun to change. In the first place, the career of David Livingstone, his journeys across the heart of Africa, his discovery that the Arab slave trade was as great a curse to the Africans as the old European slave trade, and his appeal to the British public to destroy it by developing civilization, trade and mission work throughout the dark interior, had revived the idea that, in Africa as in Asia, Britain had not merely a

commercial opportunity but also a duty towards the native peoples. Secondly, the French after 1871 began rapidly to occupy and annex territory in the north-west districts of Africa as compensation for the losses they had suffered in the Franco-Prussian War; and as they pressed southwards from Algeria across the Sahara they came into contact with the British merchants pushing inland from the west coast. Unless their further advance had been resisted, the whole of this section of Africa would soon have become French. Thirdly, it was becoming evident that a fuller development of African produce was needed to provide the raw materials and the markets for the growing industries of Britain and other European countries.



PREMPEH, KING OF ASHANTI

Wars with the barbarous Ashantis frequently menaced the British inhabitants of the Gold Coast. The terms of a treaty made in 1874 were ignored by Prempeh, who became king of the Ashantis in 1886, and he was taken captive by the British in 1896. This photograph shows him in native robes.

Photo, Deaville Walker

Finally, Germany, which had hitherto played no part in colonisation, determined to secure a foothold in Africa, and in 1884 annexed Togoland and the Cameroons.

All these factors combined to force the reluctant British government into a forward policy. The limits of the little Gambia Colony were defined and secured against French encroachment.

Forward policy on West Coast The hinterland of the Gold Coast was occupied and pacified and the power of the Ashantis, a barbarous fighting people, addicted to the practice of human sacrifice on a ghastly scale, was finally broken. On the Niger the operations of the Company were now encouraged and supported; in 1887 a British protectorate was declared over all the territory under its control; in 1890 the conflict with the French was terminated by the delimitation of British and French spheres of influence; and in 1900 the government took over from the Company the charge of all its territories, which in 1912 were united with Lagos to form the British Colony and Protectorate of Nigeria.

The method of governing this group of territories which constitutes British West Africa has varied widely according to the character of the native peoples concerned; but it was everywhere inspired from the outset by two cardinal principles. The

first was the principle of 'trusteeship'—that the primary object of government was the welfare of the governed. Thus, in West Africa as in India, the government set itself to maintain internal peace and order, to open paths for trade and civilization by building roads and railways, to suppress such barbarities as human sacrifice, to stamp out the Arab slave trade and eliminate slavery, and to assist the missionaries in the task of education. But in all these activities and in the actual forms of government adopted, a consistent attempt was made to preserve as far as possible the native methods and customs, and, where a reasonably just and efficient system of native administration already existed, to maintain and supervise it rather than destroy it in favour of direct British rule. Thus, while among the primitive pagan tribes of southern Nigeria and the Gold Coast hinterland direct rule is necessarily undertaken by British officials, in the Moslem states of northern Nigeria, with their ancient and relatively advanced system of Islamic law, the native emirs are left in charge of their own people, with their own councils, law-courts and police, the British officials merely acting as their advisers.

The second principle is that the economic resources of the country should be developed as effectively as possible for the



MOSLEM RULERS OF NORTHERN NIGERIA AT THE DURBAR OF 1913

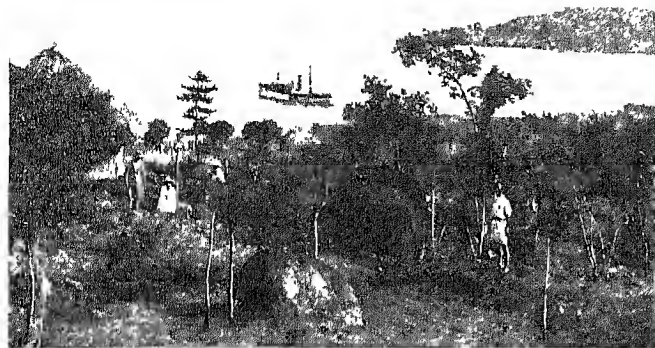
In conformity with the British policy of preserving the existing laws and customs in their protectorates whenever expedient, the administrative system of northern Nigeria remains in the hands of native emirs with their own laws and law courts. At the great Durbar held on New Year's Day, 1913, in Kano, all the sultans and emirs of the north assembled on amicable terms, although feuds of long standing had existed between many of them. In the centre of the group is the Shehu of Bornu,

Photo, courtesy of H. S. Goldsmith, C.A.I.G.

virtues of the second British Empire can be set against the vices of the first.

Meanwhile, the unknown heart of tropical Africa had been slowly penetrated and occupied. In the middle of the nineteenth century the whole of the east coast between Portuguese Mozambique and the approaches to the Red Sea were nominally under the control of the Arab sultan of Zanzibar. Throughout that area and beyond it, among the tribes that dwelt about the upper waters of the Zambesi, the Arab slave traffic left its trail of misery and bloodshed.

To Europe it was an unknown, mysterious land, until the greatest of British missionaries, David Livingstone, slowly pushing up from his first station to the north-west of Cape Colony, broke into 'darkest Africa,' and revealed its secrets to the world. In 1873, worn out by hardship and

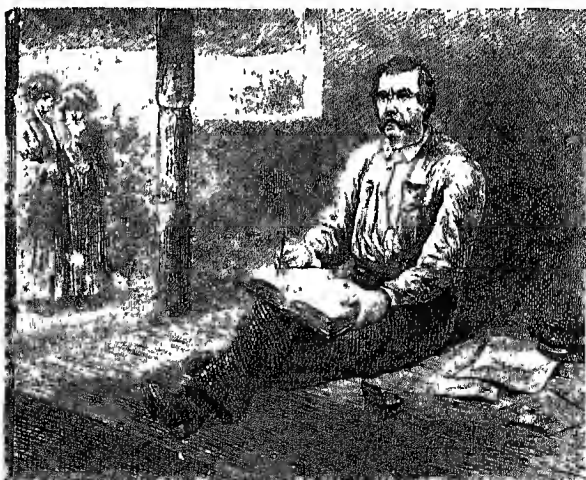


LAKE NYASA FROM SPHINXHAVEN

Third largest of the great Central African lakes, Nyasa was discovered in 1859 by Livingstone from the south and by Albrecht Roscher, the German traveller, from the east. In its neighbourhood mission stations were established by the Universities' Mission to Central Africa, whose foundation was inspired by Livingstone.

Courtesy of the Universities' Mission to Central Africa

benefit of the world as a whole. That the world needs the produce of the tropics is obvious enough. But it is essential that the pursuit of the second object should not lead to the neglect or contravention of the first and major principle. Happily in British West Africa there has been no such conflict of interests between Europeans and Africans. Its climate is insuitable for the permanent residence of European settlers; it cannot become a white man's colony like South Africa; the white residents are mainly officials, missionaries and traders, not settled landowners; the natives themselves own the land and cultivate it and sell its produce to the merchants, who convey it to the markets of Europe. Already, before 1914, the success of this economic system was apparent in the great increase of production, especially of cocoa and palm-oil, and in the rising standard of living among the native cultivators. As in India, the



DAVID LIVINGSTONE: MISSIONARY AND EXPLORER

David Livingstone (1813-73), here shown writing his journal, laboured among the natives of Bechuanaland for nine years before he undertook his exploratory expeditions into darkest Africa. He was a powerful advocate of the suppression of the slave trade, and his work inspired those who followed later.

From the sketch by H.M. Stanley

disease, he died. But his work lived after him; for his solemn call to his countrymen to continue the task he had begun had not gone unheeded. His message was quite simple. The Arab slave trade, that 'open sore of the world,' must be abolished as utterly as the European slave trade before it. And the way to abolish it was for Englishmen to go to Central Africa to settle there where the climate permitted, as it did in the Nyasa country he had himself explored, and, by the development of mission work and lawful commerce, to advance the frontiers of civilization until the forces of barbarism on which the slave trade fed were driven back into the sea.

The first result of this appeal was the foundation of the Universities' Mission to Central Africa, and the establishment of other mission posts in the neighbourhood of Lake Nyasa. Soon afterwards the African Lakes Company was founded to facilitate transport up the Shire River and on the lake; and British settlers

began to occupy the fertile and healthy Shire Highlands. The fantastic claim of Portugal to the sovereignty over all Central Africa was rebutted; treaties were made with the native chiefs; and before the close of the century the country was definitely included in the British Empire as the Protectorate of Nyasaland.

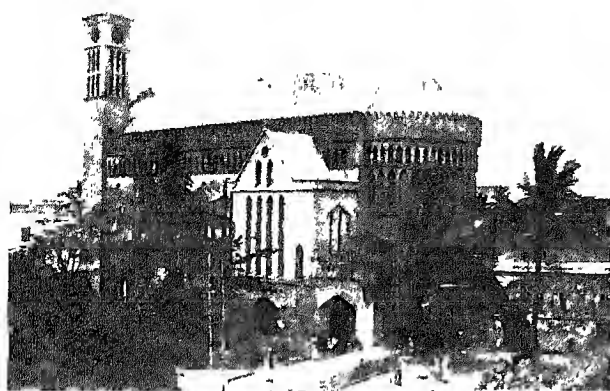
Meantime, the pioneers of colonisation had been following Livingstone's work from the south. The Nyasa district was but part of a great belt of highland country, apparently suitable for European settlement, which stretched from Uganda through Kenya and Tanganyika to link up with the 'high veldt' of South Africa, and to the quick imagination of Cecil Rhodes it seemed as if another group of British colonies might be planted there, linking South Africa with the Sudan and Egypt. 'Give me the centre of the continent,' he said, 'and let who will have the swamps which skirt the coast.' His first step was to obtain, in 1888, a concession for the exploitation of minerals from



VICTORIA FALLS STATION ON THE CAPE TO CAIRO RAILWAY

An important part of Cecil Rhodes' imperial dream was a railway some six thousand miles in length which should connect Cape Town with Cairo. The southern section of this vast undertaking starts from Cape Town and runs by Kimberley to Vryburg, whence the Rhodesia Railway Company carries the line on to Mateking, Bulawayo, the Victoria Falls on the Zambesi and the Belgian Congo frontier. From Cairo the line has been carried to Shillai in Egypt and from Wadi Halfa to Khartum.

Photo, E. N. A.



CATHEDRAL AT ZANZIBAR

Arab traders once bartered their human merchandise upon the site now occupied by this English cathedral at Zanzibar. It was due to the tact and personal influence with the sultan of Sir John Kirk, one of Livingstone's disciples, that the flourishing slave market there was destroyed.

Photo, Universities' Mission to Central Africa

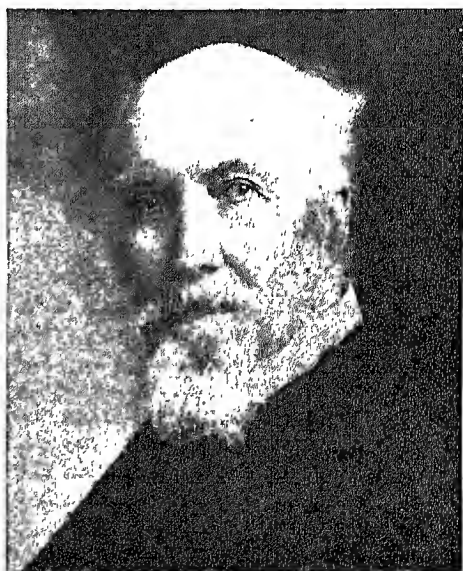
Lobengula, king of the Matabele, a warrior tribe located north of the Transvaal between the Limpopo and the Zambesi; and in 1889 yet another chartered company, the British South Africa Company, was founded.

In 1890 the company occupied Mashonaland—a step which was bound to cause trouble with the Matabele, who regarded the weaker Mashonas as their natural prey. Hence, in 1893, a Matabele attack on the Mashonas precipitated a conflict in which the Matabele were crushed by the company's troops, Bulawayo, their capital, occupied, and their country annexed. But the martial tribesmen did not finally submit until, after a rebellion in 1896, a permanent peace was established through the personal intervention of Rhodes. Meanwhile, the new settlers had begun to develop the agricultural and mineral resources of the country, and a railway was rapidly constructed from the borders of Cape Colony up to the Zambesi and beyond—the first stage of the all-British Cape-to-Cairo line of which Rhodes had dreamed. Before his death in 1902 the company he controlled had pushed its operations beyond the Zambesi, and occupied the area between Matabeleland and Nyasa-

land; and in commemoration of their founder the new territories were named Northern and Southern Rhodesia.

Half of Rhodes' prayer had thus been answered. The British had occupied 'the centre of the continent,' between Portuguese Angola and the Belgian Congo on the west and Portuguese Mozambique on the east, as far north as Lake Nyasa. There remained the great block of country stretching from the string of inland seas that lie below the sources of the Nile eastwards to the Indian Ocean. The sovereignty over all this area was claimed by the Moslem sultan of Zanzibar, an island off the coast, which had long been a great centre of the Arab slave trade, and it was mainly the influence exerted over the sultan and his

successor by one of Livingstone's younger companions and disciples, Dr. (afterwards Sir John) Kirk, that determined the fate



ENEMY OF SLAVE TRADERS

At Zanzibar, where he became consul general in 1873, Sir John Kirk (1832-1922) influenced the sultan to abolish the slave trade. He attended the Slave Trade Conference at Brussels in 1889-90.

Photo, Elliott & Fry



NATIVE MONARCH OF UGANDA

By the Anglo-German agreement of 1890 Uganda, between the Anglo-Egyptian Sudan and Kenya Colony, became British. Four years later it was declared a British protectorate. This warrior is Mtesa, one of Uganda's native kings. From Speke, *'Journey to Discover the Source of the Nile'*

of this last survival of the Arab empire in Africa.

Kirk was stationed at Zanzibar as the consular agent of the British government for twenty years (1867-1887); and it was primarily due to him that the sultan consented to abolish the slave trade in his dominions (1873). An English cathedral now stands on the site of the old slave-market at Zanzibar. So completely, moreover, did the sultan learn to trust Kirk and the nation he represented, that in 1878 he offered the lease of all his mainland territories to the British India Company. But the British government, now, as always, reluctant to extend its colonial responsibilities, refused to authorise the company to accept the offer; and, a few years later, the whole question was complicated by the entry of Germany into the African arena, bent on securing a tooting in such districts as had not yet been occupied by other powers.

In 1884 a German protectorate was declared over Togoland and the Cameroons,

as has been seen, and also over the unattached area between British South Africa and the Atlantic, which was named German South-West Africa. In 1885 the German East Africa Company was founded; and since the British government of the day was anxious not to quarrel with Bismarck over his colonial designs, Kirk was instructed to persuade the sultan, much against his will, to assent to a German occupation of the southern half of his territories. At the same time he conceded to the newly founded British East Africa Company similar rights in the northern half. After a period of latent conflict and intrigue, during which German agents attempted to outflank and narrow down the British sphere, a definite division was effected by the Anglo-German agreement of 1890. The larger and more populous southern area between Lake Tanganyika and the sea became German East Africa; the northern area, up to Somaliland and Abyssinia, became British East Africa; and with the sultan's full consent a British protectorate was also assumed over the island of Zanzibar.

The agents of the British East Africa Company had penetrated, meanwhile, into Uganda, the country lying between the lakes and the Sudan, and thus the last link in the 'Acquisitions on the East Coast' northward chain. But their German rivals were also on the scene, and it was only by the coolness and tact of Captain Frederick (afterwards Lord) Lugard, who had previously been involved in some dangerous fighting with Arab slave traders in Nyasaland, that the native king was persuaded to take the British side. Further difficulties arising from violent dissension between the Protestant and Catholic missions were also settled by Lugard. It seemed, however, as if Uganda would be abandoned to some other European power since the Company, convinced that its work in British East Africa was more than enough for its financial resources, decided to withdraw. But, after prolonged discussion, the British government consented to undertake the responsibility itself; and in 1894 it declared Uganda a protectorate.

In these new territories the aims and methods of British administration were

the same in principle as in West Africa. In those districts of Uganda in which an elaborately organized quasi-feudal system had long been established under a native king the method of indirect rule was adopted. Among the more primitive tribes of Rhodesia, Nyasaland and British East Africa direct rule was assumed by British officials. And in East as in West Africa economic development proceeded side by side with the development of mission work, education and scientific research to combat the tropical diseases that preyed on men and beasts. The Cape-to-Cairo railway was advanced across Northern Rhodesia up to and beyond the frontier of the Belgian Congo; and another line was built from Mombasa through British East Africa into Uganda.

But in one dominant feature British East Africa differed



NATIVE RULERS OF BUNYORO

Bunyoro, lying between the Victoria Nile and Albert Nyanza, was annexed to the Uganda Protectorate in 1896. The people, of Wahima stock, have considerable civilization and are ruled immediately by their own king and the Sacred Guild of great chiefs under British control.

Photo, Rev. J. Roscoe, Mackie Ethnological Expedition



FREDERICK, LORD LUGARD

Very distinguished service was rendered to British colonial government by Lord Lugard. The offices he held include those of administrator of Uganda, commissioner of West Africa, and governor of Northern and Southern Nigeria.

Photo, Russell

from British West Africa. Apart from the lowlands on the coast it is a country in which white men can live. British settlers, few at first, but gradually increasing in numbers, began to lease or purchase land from the government and to develop farms of their own. The task of cultivating the natural resources of the country was thus directly undertaken by British colonists as well as natives, and not, as in West Africa, by natives only; and the fulfilment of the other and higher task to which British rule is dedicated, the maintenance of a 'trust' for the welfare of the natives, was rendered more difficult by the possibility of a conflict between their economic interests and those of the colonists.

There remain the northern links in the chain of British territory—Egypt and the

Sudan—connecting Central Africa with the Mediterranean by way of the Nile valley. That Egypt should have been brought within the orbit of the British Empire was wholly due to its geographical position. It lies across the route from Britain to India; and when the Suez Canal was opened in 1869 it became an essential object of British policy to safeguard the passage of British shipping through this vital artery. The canal itself was and is managed by an international company, in which the British government, having purchased a large block of shares in 1875, is fully represented, and it is open to the use of all nations on payment of the same tolls.

But British opinion has always maintained that, owing to the extent and importance of the British Empire in Asia, British interests in the security and freedom of the Canal are greater than those of any other nation; and for that reason it has always objected to Egypt being brought under any other nation's control, since in that case, in the event of a European war, Britain might find herself cut off from India.



LORD CROMER

Evelyn Baring, the first Lord Cromer (1841-1917) held office as British consul-general in Egypt from 1883 to 1907. During most of this period he was virtually ruler and carried out various legal and financial reforms.

Photo Elliott & Fry

This need not, however, have led to any direct British interference in Egyptian affairs if Egypt had possessed an orderly and efficient government of its own. But it was part of the old Turkish Empire and it was grievously misgoverned by an Albanian dynasty of khedives or viceroys and a body of corrupt and tyrannical Turkish officials. The Egyptians were taxed to the bone, and millions were recklessly borrowed from Europe and recklessly squandered. At last, in 1879, Britain and France, the two countries most concerned in those loans, interfered to prevent a complete financial collapse and established a system of control over revenue and expenditure. But this, in turn, provoked in 1882 a nationalist rebellion under Arabi Bey, an Egyptian officer, and the British government, with manifest reluctance and after vainly trying to secure the co-operation of France, landed a force in Egypt to put a stop to rioting and bloodshed and protect the lives of European residents.

It was intended that the troops should be withdrawn as soon as order had been restored; but, once in Egypt, it was almost impossible to get out, until at least some stable system of government and finance had been constructed out of the chaos of misrule and rebellion. Sir Evelyn Baring, afterwards Lord Cromer, was therefore appointed British agent and consul-general to advise the khedive, assisted as time went on by a corps of British officials. Egypt remained a province of the Turkish Empire; the sultan's suzerainty was still recognized and a form of tribute paid to him; but, since it was understood that the khedive was bound to accept Cromer's advice if it were pressed, Egypt became in fact something like a British protectorate under the system of indirect rule.

Withdrawal, meantime, was made more difficult than ever by the development of grave trouble in the south. A Moslem prophet, known as the Mahdi, appeared in the Sudan, the great subtropical province on the upper waters of the Nile which had been annexed by Egypt early in the nineteenth century, and, summoning the warlike and fanatical tribesmen to a holy

war, he easily defeated the feeble Egyptian troops and threatened to let loose a tide of conquest and destruction right down the Nile valley. The British and Egyptian governments decided to evacuate the Sudan; but unfortunately the British officer, Gordon, sent to carry out this difficult task, allowed himself to be cut off and besieged in Khartum. Public opinion in England demanded that an effort should be made to rescue him; but it was only after many months' delay that the relief expedition started up the Nile, and it reached Khartum just too late. Two days earlier the town had fallen and Gordon had been killed (January, 1885).

The expedition returned to Cairo; but it was recognized that the problem of the Sudan had not by any means been settled and that, quite apart from questions of prestige or retribution, the peace of Egypt would never be secure while the power of the Mahdi, menacing the southern frontier and controlling the Nile waters on which Egypt lives, remained unbroken. In 1896, therefore, a combined British and Egyptian army under General Kitchener ascended the Nile and after several minor battles completely crushed the forces of the Khalifa, the Mahdi's successor, at Omdurman (1898). The Sudan was thus reconquered and reoccupied under the joint administration of Britain and Egypt. Under British and Egyptian officials a new regime of peace, order and justice was established. Irrigation works were undertaken and the productivity of the country, especially in cotton, was immensely increased.

Meanwhile, under Cromer's patient and firm control, the whole political and economic life of Egypt was being transformed. When he came to Cairo in 1883

he found Egypt burdened almost to bankruptcy by a huge public debt, its administration incompetent and dishonest, its army in disorder, its peasant people oppressed and exhausted. He left it in 1907 a prosperous and progressive country,

with its finances restored and soundly organized, with an efficient and trustworthy administration, with a well trained army under British leadership, with an elaborate system of modern irrigation which had vastly increased the yield of the soil, and with its eleven million people more lightly taxed, better protected from injustice, more prosperous and more contented than they had ever been in all the long history of their race.

None the less, in Egypt as in India, alien control, however benevolent and beneficent, could not satisfy the younger generation of educated Egyptians; and

already before the Great War a nationalist movement had developed whose leaders declared that Britain's work in Egypt was now finished and that the time was ripe for the fulfilment of her old promise to withdraw. To the British, on the other

hand, it seemed that a hasty relaxation of control, a premature abandonment of Egypt to Egyptian self-government, might mean the undoing of all the good work done. Political concessions were made, however, between 1907 and 1914. Wider powers of local government were given to provincial councils, and the bicameral legislature was replaced by a single chamber, mainly elective, and with increased authority over the executive. But in vital matters the advice of the British consul-general was supreme.

No survey of the British Empire as it exists to-day would be complete without



A MOSLEM FANATIC

Believing that it was his mission to deliver Egypt from foreign domination, the Mahdi raised an army and overran the Sudan. He died in 1885, and his successor was crushed at Omdurman.

Steps to Egyptian
independence

Chapter 172

some account of its two groups of island colonies, one in the Atlantic, one in the Pacific, which, though some of the units which compose them are separated by many leagues of sea, can be conveniently discussed together. The first group, the West Indies, was, as has been seen, economically united with West Africa under the first British Empire. But the old link was broken by the abolition of the slave



WEST INDIAN SLAVERY

In 1833 the duke of Wellington, among others, signed a protest against Lord Stanley's West India Slavery Bill; and this satire shows a negro, with the features of the duke, 'protesting' against entering the waters of emancipation.



OPTIMISM ON THE FIRST OF AUGUST

At midnight of the last day of July, 1834, Lord Stanley's bill came into force, and this extravagant drawing of the period reflects the jubilation of the anti-slavery agitators. Actually, however, emancipation was not an unmingled blessing at first, the negroes taking time to learn what freedom meant.

From Madden, West Indies, 1835

trade (1807); and soon after the close of the Napoleonic wars the same humanitarian movement which had abolished the slave trade brought the whole slave system to an end by the abolition of slavery itself. A measure which deprived them of their human property and transformed the economic basis of their industry was not unnaturally opposed by the majority of the British planters and their agents in Britain. But the planters refused to accept the British government's advice to take in hand themselves the task of ameliorating the conditions of the slave system and preparing the way for emancipation. Led by Buxton and cheered on by the veteran Wilberforce from his retirement, the attack was opened in Parliament in 1823; but for ten years the government maintained its policy of patient but fruitless

exhortation, till at last in 1833, when it was clear beyond question that the colonial legislatures would never do their duty by themselves, the first Reform Parliament passed an Abolition Act. At midnight on July 31, 1834, over 800,000 slaves in the British Empire became free men, their masters being compensated by a grant of £20,000,000. The act prescribed that the ex-slaves should continue to work for their masters as apprentices for a period of years; but this system operated so badly that in 1838 complete freedom was enacted.

Inevitably the planters suffered from the subsequent dearth of labour, for the freed slaves were none too ready

Stagnation in the West Indies to hire themselves to their old masters; and the economic welfare of Jamaica

and her sister islands was further injured by the introduction of free trade in Britain and the development of beet sugar in Europe. The West Indies, once regarded as so vital to the Empire, became a neglected backwater. The European population diminished. Many of their estates passed into the possession of half-castes and negroes. A class of negro peasant proprietors developed, growing their own food. As a final symptom of social and political decay the old colonial representative assemblies were abolished and the islands were administered as crown colonies.

Latterly there has been some recovery. The fruit trade, especially in bananas, and the British preferential duties on sugar have restored in some degree the prosperity of Jamaica; and demands have been made for the restitution of the old political status and even for the grant of responsible government. Of the other islands Trinidad has prospered most, owing to its fruit and oil and asphalt; and, out in the ocean to the north, the Bermudas and Bahamas have benefited by their close commercial relations with the United States. There are special economic links, moreover, between the islands as a whole and Canada; and a commercial agreement between them has been made.

The West Indies are one of the oldest parts of the British Empire; the British islands in the Pacific are one of the newest.

It was not till the nineteenth century, after colonisation had begun in Australia and New Zealand, that British traders and missionaries began to penetrate in any numbers into the beautiful, romantic world of the South Seas. They found its myriad islands populated by primitive peoples, who were addicted to savage customs but amenable to European control, and productive of such marketable goods as sandalwood and copra. Side by side with the British intruders came the French; and the story of West Africa was repeated. Rival spheres of influence were marked out; protectorates established; and finally annexations made, until in the end the French had occupied most of the eastern group together with New Caledonia and its satellites in the west, and the British had occupied the Polynesian and Melanesian groups, while the New Hebrides were assigned to a cumbrous Franco-British 'condominium.' Towards the end of the century the United States annexed the Hawaii or Sandwich Islands and Germany the Bismarck Archipelago and part of northern New Guinea.

This partition of the South Seas among the European powers was, no doubt, inevitable; but inevitably also the islanders suffered in the process. The earlier

Protection for the Pacific Islanders traders were none too scrupulous; and when

sugar plantations were developed in Queensland a traffic grew up for supplying labourers from the islands which rapidly degenerated into something not unlike the slave trade. Few of the natives could understand the terms of their contracts and many of them were actually kidnapped. This 'blackbirding,' as it was called, might have long continued in those remote unpoliced seas if public opinion had not been awakened to the scandal by the tragic fate of Bishop Patteson, Bishop Selwyn's lieutenant and successor in the Melanesian mission field, who was murdered in 1871 by some islanders determined to take vengeance for their kinsmen on the first white man they could catch. In 1872 a Pacific Islanders Protection Act was passed by the Imperial Parliament, and in 1875, under another act, the governor of Fiji,

the largest of the British islands and the centre of administration, was appointed high commissioner of the Western Pacific with the duty of enforcing the law and safeguarding the natives from injury.

In 1914 the second British Empire had existed for 130 years. It had grown far beyond the limits of the first, until it covered about a quarter of the earth. Its political, economic and social conditions varied widely in its different parts. And, while its development had been guided in the main by two great principles—by the principle of equality in the European or self-governing field and by the principle of trusteeship in the non-European or dependent field—another no less vital principle, that of unity, seemed to have been neglected. What was it, men asked, which really kept the Empire together?

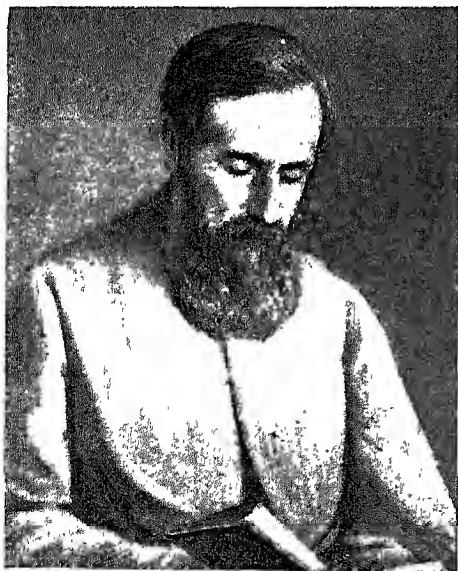
Two movements therefore developed in British political circles with the object of attaining a closer imperial unity. The first was political and aimed at imperial federation, that is, the application to the self-governing Empire of the system already adopted in Canada and Australia, under which the common affairs of Britain

and the Dominions, such as foreign policy and defence, would be controlled by an imperial body directly representative of all the national units concerned. The second movement, led by Joseph Chamberlain, was economic and aimed at a system of inter-imperial preferential duties which might ultimately become a 'Zollverein' or customs-union, prescribing free trade within the Empire as a whole and protection against the rest of the world (see further in page 4477).

Both movements failed—the first because the Dominions, who were proudly conscious of their new national individuality, were unwilling to contemplate any increased measure of control over their British Empire destiny by a body sitting in far-off London in which, though they would themselves be represented, the representatives of Britain would constitute a decisive majority; the second because the British electorate resented the increase in the cost of raw materials, especially food stuffs, which any system of imperial preference would involve. And so, in 1914, the framework of the Empire was as loosely knit as ever.

Despite this, or rather, perhaps, because of it, the unity of the Empire, when the Great War came, was such as to astonish the world. Instantly, spontaneously, unanimously the Dominion peoples determined to take their part in meeting the German challenge. The decision was formally registered by their respective parliaments; and at the earliest possible moment a stream of virile soldiers began to cross the oceans from each of the Dominions to fight in Europe or other areas of the war. Of their fine military record this is not the place to speak. It is enough to say that, at the end of the war, nearly a million men had been recruited in the Dominions for service at the front, and that more than a tenth of them had been killed in action. And in the production of munitions and food supplies and in every field of war effort the Dominions took their full share.

Nor was it only the self-governing part of the Empire which thus rallied to the common cause. The Indian Army, drawn mainly from the martial races of North



VICTIM OF A TRAGIC MISTAKE

After ten years' devoted missionary labour in Melanesia, John Coleridge Patteson (1827-71), consecrated bishop in 1861, was murdered at Nukapu by natives in misguided vengeance for wrongs that they had suffered from white traders.

Engraving from photograph

India, was shipped overseas and fought beside the British in France and Mesopotamia and Palestine, and its strength was maintained by a strong current of recruits.

The general loyalty of the Indian people, moreover, was so manifest that it was possible to withdraw some thousands of the British regular troops in India. Generous financial contributions were also made by the native princes and other wealthy Indians. The African members of the Empire likewise played their part. Native regiments were engaged in the campaigns in the German colonies in East and West Africa; many thousands of Africans provided the essential transport service and suffered terribly, especially in East Africa, from exhaustion and disease; and among the South African natives labour corps were formed for work behind the lines in France.

Five empires entered the war—the British, Russian, German, Austrian and Turkish. Four of them collapsed under the strain. The British Empire alone emerged into a new age in which the old-fashioned imperialism of an earlier day, long discarded by the British peoples, is everywhere damned, if not yet everywhere dead. And, as after other wars, the British Empire had been enlarged by victory. It can honestly be said that the British people in 1919, as in 1815, were not eagerly bent on acquiring yet more territories and yet more responsibilities; but, once it had been decided that the German colonies and the Arab provinces of the Turkish Empire

were not to be restored to their old masters, it was almost inevitable that the British should share with their allies in assuming the government of those territories

under the new mandate system. Thus Britain accepted mandates for Irak, Palestine and Transjordania—a special type of mandate based on the idea of temporary trusteeship. In the case of Irak the mandate was dropped and the country recognized as an independent state associated by treaty with Britain. Mandates of a more permanent kind over more backward peoples were assumed by Britain in German East Africa, renamed Tanganyika, and in part of Togoland and the Cameroons; by South Africa in German South-West Africa which was incorporated in the Union; by Australia in German New Guinea; and by New Zealand in Samoa; while the rich islet of Nauru in the Pacific was entrusted to the joint mandate of Britain, Australia and New Zealand.

The Empire was not only thus enlarged, it also underwent a change during the war and the first years of the peace—a change so important that the Empire is now sometimes described as

the third British Empire. But this conveys a false idea. It suggests that the post-war Empire is as different in its character from the pre-war Empire as that in turn was different from the first Empire, whereas the change was not so much a transformation as an evolution. It confirmed, continued, carried to their logical climax the principles of life and growth on



AN AFRICAN SOLDIER

Fine service has been rendered to Britain by native regiments in her international colonial struggles and in the Great War. This private, fully equipped, belongs to the King's African Rifles.

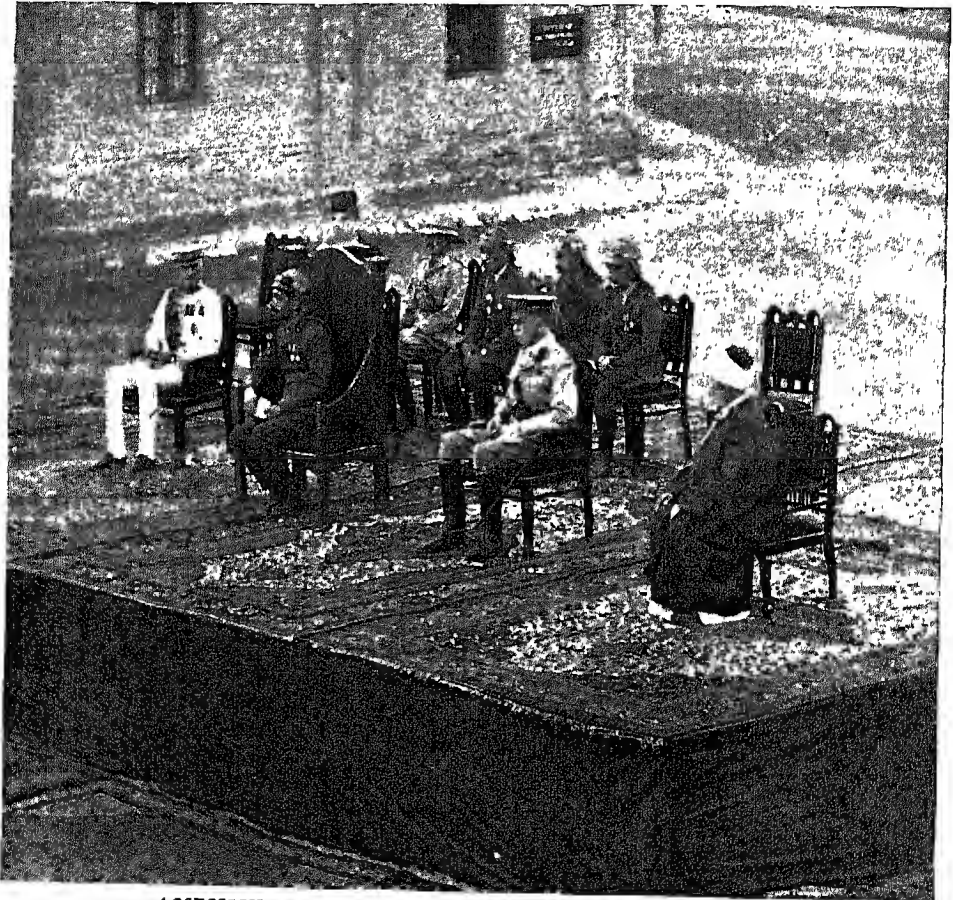
Photo, E.N.A.

which the second British Empire had been built since 1783.

Thus, in the first place, the principle of the mandate system, which declares, in the words of the Covenant of the League of Nations, that the well being and development of backward peoples form 'a sacred trust of civilization,' is no new principle to the British Empire. It is the old principle of trusteeship; and in obeying the regulations of the mandates for the protection and advance of native interests, British administrations in Tanganyika or other ex-German colonies have had merely to carry on the rules and methods of government long established in British tropical Africa. The only real novelties in

the mandate system are, first, that the principle of trusteeship has now been solemnly accepted by all the great colonial powers; and secondly, that the mandatory state has to render account of its execution of the trust to the Mandates Commission of the League.

More striking was the post-war development in India. Before 1914 educated Indians were not content with the measure of self-government conceded to them by the Morley-Minto reforms (see page 4474); and when the war came, when India proved her loyalty to the Empire, and when the leaders of the allied and associated powers declared that they were fighting for freedom and democracy,



ACCESSION OF KING FEISAL TO THE THRONE OF IRAK

On August 23, 1921, the emir Feisal, son of the king of Hejaz, was inaugurated as king of Irak under British auspices. On a dais in the Great Court of the Serai at Bagdad the new king is in this photograph seen seated in state between (left to right) the British high commissioner, Sir Percy Cox, and the general officer commanding-in-chief, Sir Aylmer Haldane,

Photo, Hana Studios

it seemed difficult to refuse to India a greater meed of freedom, a first instalment at any rate of democratic institutions. Yet to concede this boon seemed scarcely less difficult. The old arguments against attempting democracy in India had lost none of their validity. It was as clear as ever that the welfare of its multitudinous peoples—now grown to over

220 million in British India alone and to over 300 million if the native states were included—

was bound to suffer if government were transferred from the hands of the experienced British bureaucracy to those of inexperienced Indian politicians, chosen by an electorate constructed somehow out of a population of which more than 90 per cent. were illiterate and unable to comprehend the meaning of a vote. On the other hand, how were the Indian people ever to achieve political progress, how were they ever to be fitted to govern themselves, unless some day they were given the opportunity of learning to do it? And how could they learn self-government except by practising it?

These last considerations decided the issue in the minds of British statesmen. They determined to make one of the boldest experiments in history. Accordingly, in 1917, the British government declared its policy to be 'the gradual development of self-governing institutions with a view to the progressive realization of responsible government in India as an integral part of the British Empire'; and in 1919 this policy was incorporated in the Government of India Act. The Act was based on the Montagu-Chelmsford Report, the fruit of a joint inquiry by the secretary of state and the viceroy, which had been subjected to careful examination by a committee of both Houses of Parliament. As regards the All-India government, it replaced the old Legislative Council by a national bicameral parliament, composed of an Assembly and a Council of State, the former consisting of elected representatives from all parts of British India. To this body representative, but not responsible, government was conceded. Thus the Assembly can debate and carry or reject legislation, including the budget,

like the House of Commons; but it cannot like the House of Commons, control the executive, the members of the government of India being still responsible to the Imperial Parliament.

It was in the provinces—each of them great states with many millions of people—that the first step in real responsible government was taken. By a system known as 'dyarchy' the field of government was divided into 'reserved' and 'transferred' subjects. Over the reserved subjects, such as the maintenance of justice and order and the collection of revenue, the governor and his executive council remained as before responsible only to the Imperial Parliament and not to the elected Legislative Council

of the province. But the transferred subjects, such as education, agriculture, public works and public health, were handed over to the full control of Indian 'ministers,' responsible, like ministers in Britain, to the Legislative Council. Thus, in this wide field, real self-government was initiated; and the act suggested the possibility of further development by prescribing the appointment of a commission in 1929 to examine the operation of the system during its first decade and to advise Parliament as to its continuance. In 1927, two years before it was due, this commission was appointed with Sir John Simon as chairman. Finally as a guarantee, so to speak, of the future, a promise of the distant day when India will have learned to govern and guard herself like the Dominions, she was admitted as a separate member to the League of Nations.

The war also brought about a change in the political status of Egypt. When the Turkish Empire allied itself with Germany, the old formal subjection of Egypt to Turkey was abolished, and Egypt was proclaimed a British protectorate. After the war, however, the nationalists continued their agitation for complete independence; there was a short and easily suppressed revolt; and in 1923 the British government, influenced in the case of Egypt as in that of India by the reactions of the war, declared Egypt to be an independent state under its own hereditary monarchy

and a representative legislature. Many of the British officials in the country were retired and replaced by Egyptians; but a British high commissioner remained in Cairo and a garrison of British troops was retained there pending the settlement of certain outstanding questions, such as the security of the Suez Canal, the government of the Sudan and the protection of European residents.

Lastly, the war brought to its conclusion the long process of political assimilation in the Dominions. By 1914, it was noted, they had attained equality with Britain in all fields of government except the last dominant field of foreign affairs. After 1914 it was manifestly impossible for them to continue to take no share in deciding issues which, as they now realized, were issues of life and death. Never again could they permit themselves to be involved in war as members of the British Empire through a foreign policy shaped by Britain only. Nor were British statesmen slow to accept the claim that in foreign affairs, as in all else, the Dominions must be the equals of Great Britain, at least in status if not yet in stature.



SIR ROBERT BORDEN

Elected to the Canadian House of Commons in 1896, Sir Robert Borden became leader of the Conservative party in 1901 and premier in 1911. In 1919 he represented Canada at the meetings of the Peace Conference in Paris.

Photo, Lafayette

In 1917, on the invitation of the British government, the prime ministers of the dominions came to London, not merely to participate in an imperial war conference of the old deliberative and advisory type, but also to sit with the British war cabinet to constitute an imperial war cabinet with executive authority over the conduct of the war. This system was maintained for the rest of the war; and

it was continued at the **A commonwealth peace conference, at of equal nations** which the British Empire

was represented not by British statesmen only, but by a British Empire delegation wherein each Dominion had its representatives. The principle of 'equal nationhood' was finally confirmed, on the initiative of the Canadian prime minister, Sir Robert Borden, when the Treaty of Versailles was separately signed by the Dominion plenipotentiaries and separately ratified by the Dominion parliaments. Similarly, the Dominions became separate members of the League.

Thus, the long process of political assimilation was completed. The self-governing portion of the British Empire had developed into a commonwealth of nations, including the Irish Free State, which was given 'Dominion status' by the treaty of 1922, each free and equal yet all united. At the Imperial Conference of 1926 a statement was drawn up and confirmed by all the prime ministers which summarised this great achievement and made its meaning clear:

The tendency towards equality of status was both right and inevitable. Geographical and other conditions made this impossible of attainment by the way of federation. The only alternative was by the way of autonomy; and along this road it has been steadily sought. Every self-governing member of the Empire is now the master of its destiny.

And the mutual relations of Great Britain and the Dominions were thus defined:

They are all autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations.

CHINA UNDER THE MANCHUS

How the last Days of Imperial Rule epitomise
the recurrent Alternations of Chinese History

By J. O. P. BLAND

Author of *Recent Events and Present Policies in China, etc.*, and Part Author of
Annals and Memoirs of the Court of Peking

THE history of China has been fittingly described as a series of paroxysms. It is the history of a race whose social system has made frequent famines, rebellions and civil wars inevitable, but which, at the same time, has given to Chinese civilization its unparalleled cohesion and duration. It is impossible to form a correct estimate of the significance of any period or event, such as the fall of the native Ming dynasty and the establishment of the Manchus as rulers in their place, unless we bear in mind the nature of this social system and the fact, arising out of it, that in China the forms of government are of less importance than the men who administer it.

The social structure of the race, based on ancestor worship, the institution of the family and the 'three relations' of the Confucianist philosophy, is something wholly independent of the acts or omissions of the nation's rulers, something which, amidst ever-recurring cataclysms of disorder and distress, has triumphantly stood the test of time; also it has given to the world's oldest civilization a philosophic serenity and to its members and citizens certain qualities which dignify their lives and command our instinctive admiration.

For more than two thousand years the Chinese people have accepted without questioning and acted upon the belief that 'the first duty which man owes to Heaven and to his ancestors is to have posterity.' The result of this deep-rooted belief is that, for the masses of the people, the eternal question, outweighing every other, has always been the problem of daily bread; the peace and prosperity of the Empire have depended far less upon wisdom or wickedness of Mongol, Ming or Manchu rulers than upon the pressure of

population on the means of subsistence. The cause of unrest, throughout the ages, has been the acute economic pressure necessarily resulting from an excessively high birth rate. The Chinese have observed the fifth commandment more thoroughly than any other Oriental race, and their days have been long in the land.

But they have not been days of fatness. The author of a modern scientific inquiry into the causes of chronic famine in China puts the facts accurately when he observes that the social system

based on ancestor worship 'has produced a **Consequences of Ancestor Worship** race of human beings

who are willing to make sacrifices, even to the point of starvation, in order to honour not only their parents but their remote forebears.' To understand the permanence of certain features of China's national life this fact must be borne in mind; also, that no exterior influences can easily displace this religion of the dead in the deep affection of the race which has evolved it. Let the government call itself what it will, this religion retains its hold upon the soul of the people, and continues to exercise a paramount influence both upon the material existence of the masses and upon their outlook on life and death.

Studying Chinese history on a large scale, we perceive that paroxysms, such as that which ended in the collapse of the Ming dynasty and those which first shook and then overthrew the Manchus, can generally be traced to a gradually increasing pressure of over-population on the national food supply, which is the immediate and inevitable result of any considerable period of peace and prosperity. We perceive also that these prosperous intervals usually followed upon periods, such as the

Taiping and Mahomedan rebellions, in which uncounted millions 'went to their graves like beds,' leaving vast tracts of country destroyed and depopulated. Thus, according to the figures compiled by the Jesuit missionaries at the court of the emperor Ch'ien Lung, the first census taken by the Manchus after they had definitely established their authority in 1651 showed a population diminished by civil strife to about 55 millions. The first census of the Han dynasty (A.D. 11) and that compiled by Kublai Khan at the beginning of his reign in 1280 gave slightly higher figures. In both instances, as the result of the slaughter that marked the violent end of a dynasty or the suppression of a rebellion, the new ruler took over an empire unafflicted by overcrowding.

For forty years after the accession of the Manchu dynasty its rulers were engaged in continual campaigns against

the adherents of the Mings in the southern provinces; peace was not completely restored throughout the empire until 1681. The official census of that year showed a total of about 75 millions. From that time forward, under the firm and enlightened rule of the emperors K'ang Hsi and Ch'ien Lung, the nation enjoyed a prolonged period of peace, law and order, which resulted in a rapid increase of the population. In 1720, three years before the death of K'ang Hsi, the total had reached 125 millions. Sixty years later the official estimate was 283; in 1812, under Chia Ch'ing, it had increased to 360, and in 1842, before the outbreak of the Taiping rebellion, it had risen to the saturation point, that is to say, about 400 millions. After the terrible slaughter of that protracted rebellion, in 1862, the Chinese government census estimated the number of survivors at 261 millions.

Moreover, the dynastic annals record that during the period of extreme pressure from 1810 to 1830, before battle, murder and sudden death had decimated the population and devastated whole provinces, four great famines had carried off some 45 millions.

The regular recurrence of famine, as a necessary corrective of over-population, alternative to the swift slaughter of civil strife, is a constant feature of China's national life, a phenomenon which deserves to be seriously studied, not only in interpreting the past but in estimating the future. According to figures published in 1926 in a study by the Agricultural Society of the University of Nanking, no fewer than 1,828 famines were recorded in Chinese history between the years 108 B.C. and A.D. 1911. In other words, for the last 2,000 years—and probably long before that—the normal death rate in China has contained a constant starvation factor, and must inevitably continue to do so unless



VICTIMS OF FAMINE IN HONAN

With a food supply wholly inadequate for the teeming population, China is subject to constant famine, no year passing in which the death rate is not swollen by sheer starvation. These unhappy creatures are examples of the distress caused --- such visitation in the Lu Shan region of Honan Province.

Photo, E.N.A.

the natural increase of the population can be kept in check by other and less painful means. Given sufficiency of food, China's 400 millions might easily become 800 in 20 years, and exceed the present population of the planet in half a century. But the actual food supply being wholly inadequate even for 400 millions, and emigration only possible on a limited scale, the fact stands out, undeniable, that the problem of China, past, present and future, is essentially one of social economics, insoluble either by political revolutions or by pious resolutions.

Under strong rulers, such as the emperors K'ang Hsi and Ch'ien Lung, and later the empress-dowager Tzu Hsi, or

Constant menace of starvation under a system of government which, by virtue of precedent and prestige, exercises effective

authority, an unstable equilibrium may be maintained, despite the acute pressure of over-population. But whenever the strong hand of recognized authority becomes ever so slightly relaxed, as that of the Manchus became during and after the reign of Chia Ch'ing (1796-1821), the starving multitudes, to whom revolution means food and opportunities of loot, have swiftly joined the company of the nearest freebooter or rebel chief and proceeded to the sacking of cities. The history of China under the Manchus emphasises a truth repeatedly demonstrated under earlier dynasties, namely, that vast masses of human beings, howsoever fatalistic and pacific, will not abide quietly under the constant menace of starvation unless held in check by the strong hand of despotic authority.

Thus the Taiping rebellion, which nearly succeeded in overthrowing the Manchu dynasty, grew swiftly to a devastating force out of the local forays of a handful of Kwangsi bandits. The motive power behind it was the increased severity of economic pressure due to over-population; its rapid successes were chiefly due to the fact that the military organization and race cohesion of the Manchus had degenerated; in fact, the Imperial Clans no longer represented a ruling race. Had it not been for the assistance rendered to them at a critical juncture by General Gordon

and his 'ever victorious army' (1862-64), the Taipings would probably have ejected them and established a new native dynasty at Peking, thus following the precedent of the Ming and Han dynasties, founded by 'captains of troops of vagabonds.'

As it was, the Manchus received a new lease of precarious life and gradually succeeded in restoring something of the prestige and authority of the Dragon Throne. Their success in so doing was entirely due to the courage and statecraft of the empress-dowager Tzu Hsi; but the comparative tranquillity which the country enjoyed for a quarter of a century after the collapse of the rebellion must also be ascribed to the fact that throughout large areas the land had gone out of cultivation for lack of inhabitants. Thus the chief incentive to large predatory movements of lawless men had, for the time being, been eliminated.

Broadly considered, in the light of many centuries, the Manchus play no very important or impressive part in the long pageant of Chinese history, nor has their rule left many traces

upon the structure of the **Rise of the Chinese race. They rose Manchu House** to power and eventually

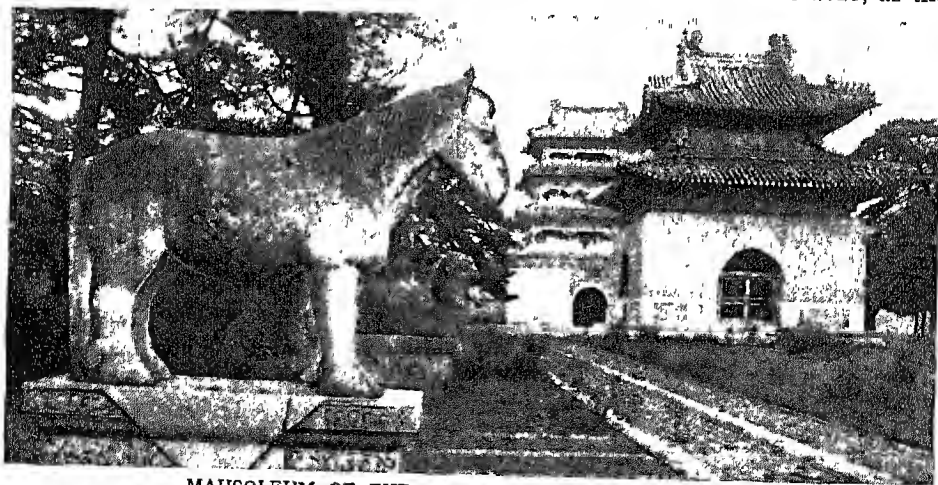
established their authority at Peking, partly as the result of their superior military efficiency and statecraft, but also because the misrule of the eunuch-ridden and incompetent Ming sovereign had left the empire disorganized by internal strife. The actual overthrow of the Mings was effected by the successful rebellion of Li Tzu-cheng, who had actually taken his seat upon the Dragon Throne and might have remained there if another ambitious military commander, Wu San-kuei, had not joined forces with the Manchus to eject him. The fate of China at this juncture depended upon the successful rebels maintaining a united front against the growing power of the forces on their northern frontiers. The country passed under alien rule because, as usual, they quarrelled over the spoils; the immediate cause of Wu San-kuei's defection lay in his chagrin at Li's seizure of his favourite concubine. Wu, having thrown in his lot with the Manchus, was rewarded with the congenial mission of pursuing

Li Tzu-cheng; the latter, after thoroughly plundering the capital, had started southwards with his loot-laden forces. When, having relieved Li of his booty and driven him into the wilderness, Wu returned to Peking, he found the Manchus firmly in the saddle; he then became, and remained for thirty years, a pillar of their state.

The Manchus found the country, decimated by years of civil war and banditry, generally ready to recognize the 'mandate of heaven' in any rulership which promised surcease of strife; their authority was therefore consolidated without much difficulty in the northern and central provinces. Within a year of the proclamation of the Ta Ching dynasty, Nanking had fallen to their forces, and the shaved head and pigtail, imposed by Tatar sovereignty, were generally adopted by all classes. But the separatist tendencies, for which the southern maritime provinces (Kwangtung, Kwangsi and Fukhien) have always been noted, continued to be manifested for several decades in resistance to the Manchus, ostensibly inspired by loyalty to the Mings. It is to be observed—because the facts have a direct bearing on modern events—that even after all organized opposition had been subdued by the armed forces of the emperor K'ang Hsi, the activities of the White Lily, Triad and

other secret societies, representing the irreconcilable spirit of the Cantonese, were still in evidence, manifested in piracy, banditry and armed smuggling; and, so soon as the 'moral' of the central government began to show signs of weakening, they speedily assumed the complexion of an anti-dynastic and national movement. The watchword of the Triad society in the earliest days of the Taiping rebellion was 'destroy the Manchus; restore the Mings.' Though that rebellion was eventually suppressed with the aid of General Gordon, it clearly foreshadowed the impending doom of the Manchu dynasty and opened up wider fields of activity for the next generation of Cantonese conspirators and agitators.

The comparative ease with which the Manchu warrior kings established their authority over the greater part of China, and the success with which they subsequently governed it for over a century, may be primarily ascribed to the wise statesmanship and military efficiency of Nurhachi, the founder of the dynasty, by whom war had been declared against the Mings as early as 1618. It was carried on in a number of campaigns until his death in 1626, and thereafter by his son, canonised in Chinese history as Tai Tsung, the Great Ancestor. Before 1618, as the



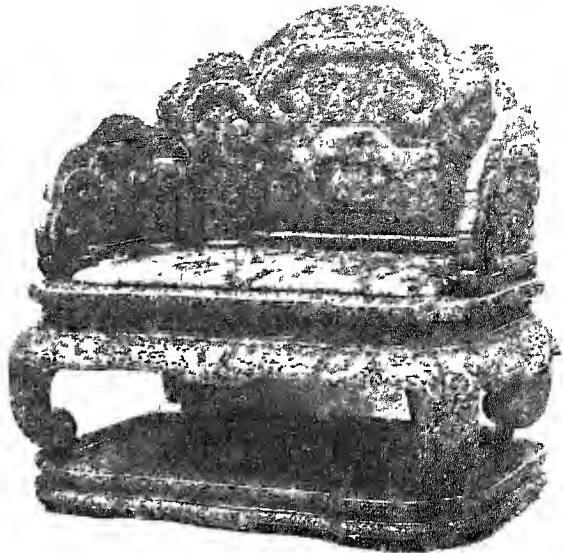
MAUSOLEUM OF THE MANCHU RULER, TAI TSUNG

Mukden, officially named Fengtien, is one of the oldest towns in Manchuria, and was made the capital of the Manchu line in 1625. In its neighbourhood are three imperial mausolea, the one shown here being the Chao-ling, or Pei-ling, the 'Northern Tomb' in which the emperor Tai Tsung was buried in 1644. A wall 1,800 yards in perimeter encloses the tomb, and rows of granite figures of horses, camels, lions and tigers represent the departed spirits of the emperor's ministers.

Photo, E.N.A.

result of desultory frontier and tribal warfare, Nurhachi had conquered all the region lying between the mouth of the Amur and the Tumen rivers and was in receipt of an annual 'subsidy' from the Chinese court. Tai Tsung, after consolidating his empire over Mongolia and Korea, made several successful raids into China as far south as the capital of Shantung, so that, when eventually they came to ascend the throne of China, the ruler and his kinsmen, the Princes of the Imperial Clans, were well equipped, by experience and study of Chinese affairs, to deal with the problem of administering the country. From the outset, the Manchu sovereigns wisely adapted their rule to the institutions that they found in China, and recognized the necessity of preserving the Confucian philosophy and principles of government.

It has been the custom of the revolutionary Cantonese to describe the Manchus as alien rulers, but as a matter of fact, at the period when they succeeded the Ming dynasty, they were probably more nearly akin in temperament and culture to the people of northern and central China than the inhabitants of the southern maritime provinces have ever been. The dispatches addressed by the Manchu sovereign, Tai Tsung, to the last of the Mings in 1642 afford conclusive evidence that, to the Chinese, the Manchus were a little more than kin, if less than kind. They made good their hold on the government of China by virtue of a remarkably efficient military organization, war-seasoned troops and a martial spirit, in all of which the Chinese were lacking. They established and maintained their authority by force of arms, placing Tatar garrisons at strategic points and imposing the tonsure and queue on the conquered nation; but, for the rest, they recognized the superiority of



LACQUER THRONE OF CH'EN LUNG

Lacquer work, a very early Chinese industrial art, is divided into two classes—painted and carved, the latter made principally at Peking. Ch'ien Lung particularly favoured carved lacquer and had many articles made for the palace. His throne, carved of solid red lacquer, is a fine specimen of the period.

Victoria and Albert Museum

Chinese culture, philosophy and literature. Once again the Canons of the Sages led captivity captive.

The Manchu dynasty reached its zenith of power and prestige under the emperors K'ang Hsi, Yung Ch'eng and Ch'ien Lung. Under K'ang Hsi the frontiers of the empire were extended from Siberia to Cochin-China, and from the Yellow Sea to Turkistan and Tibet; Ch'ien Lung's campaigns added Ili, eastern Turkistan and Nepal to the imperial dominions. But the enduring fame of these great monarchs rests not so much upon their military conquests as upon their achievements as Chinese scholars, historians and writers. They retained the Manchu language at court, and used it, side by side with Chinese, on their coinage and monuments; but in the domain of literature and philosophy they followed the classical Chinese tradition and achieved their distinction as scholars in conformity with the principles of literary orthodoxy.

The seventeen years' reign of the first Manchu ruler of China, Shun Chih, was so fully occupied with campaigns for the subjection of the Ming dynasty's adherents



A GREAT EMPEROR

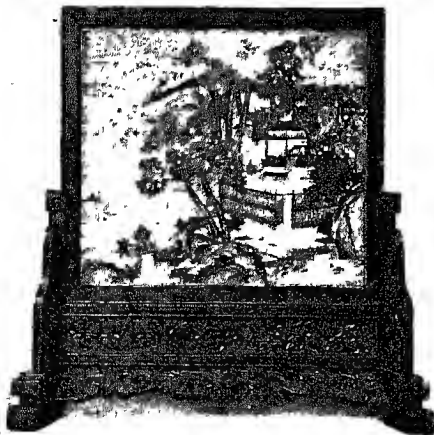
Patron of literature, science and art, and himself a distinguished author of an ethical code, K'ang-Hsi was China's most enlightened emperor. During his sixty years' reign (1662-1722) China's native civilization was permanently consolidated.

From Bouvet, 'Histoire de l'Empereur de la Chine'

in the south, that the administration of the provinces, their fiscal relations with the

capital and the organization of the public service throughout the country remained more or less in the confused condition to which they had been reduced during the years of chaos preceding the fall of the Mings. The system of competitive examinations for the civil service had ceased to operate; the southern provinces were administered by three semi-independent satraps, upon whom princedoms and wide powers had been conferred in return for services rendered to the Manchus in their conquest of the empire. It was not until 1681, after defeating a rebellious coalition of these three princes, that the emperor K'ang Hsi was able to consolidate the full authority of the central government and to restore the civil service, composed of classical scholars, to the position which it had held, with occasional periods of disruption, for centuries.

K'ang Hsi was not only a great military commander and a wise ruler; the fame which he conferred upon his dynasty, probably higher in the eyes of the Chinese than that of any sovereign since the legendary age, rests chiefly on his literary achievements (notably the monumental K'ang Hsi dictionary) and on his encouragement of classical scholarship and the arts. More important than his enlargement of the empire's boundaries,



ODE OF THE EMPEROR CH'EN LUNG ON A CLOISONNE PICTURE

Ch'ien Lung reigned from 1736 to 1795, and throughout his reign maintained the high literary and artistic reputation established for the dynasty by K'ang Hsi. Ch'ien Lung was an industrious poet, and his odes were often inscribed in facsimile on porcelain and jade. Above is one of his odes carved on the wooden back of a cloisonné enamel plaque mounted as a screen picture. The poem, which interprets the picture, is in the handwriting of the emperor's grand secretary, Liang Kuo-chih.

Victoria and Albert Museum

in its effect upon the social structure and mind of the race, is the 'Sacred Edict,' wherein, as a teacher of morality for the masses, K'ang Hsi expounded the fundamental principles upon which the peace and prosperity of the nation should be established. As monarch, he subscribed

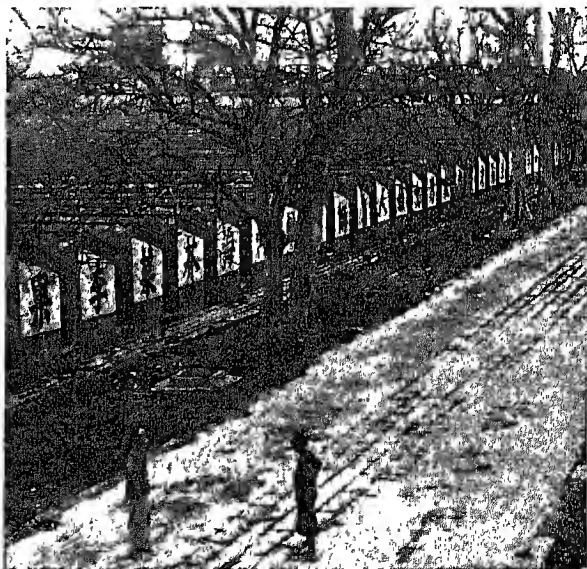
unreservedly to the time-tested wisdom of China's ancient worthies and to their philosophy of government by moral agency in preference to physical force. To the preservation and purification of the classical system of education, as prescribed by the Four Books, he devoted years of energetic effort. In re-establishing and reforming the classical system of examinations in the classics for the public service he restored that which, in the opinion of many competent observers, has constituted the chief cause of the time-defying cohesion and longevity of China's civilization.

Thus, the rule of the Manchus did not produce any influential movement of national life in China reflected either in literature or in art; its achievements, under the best of its sovereigns, lay rather in restoring and consolidating the state in accordance with the great native traditions of the past and in proving, once more, that when the orthodox principles of wise government are applied by rulers who not only prescribe but practise these principles, the nation is likely to enjoy peace and prosperity and unity.

Modern events in China, and the chaotic conditions which have prevailed since the Revolution, have made it more than ever essential for the student of Chinese affairs to appreciate the importance of the old system of competitive examinations for the public service as a permanent factor in preserving the unity of the nation. By this system the collective intelligence of the Chinese has been bound together for ages by the ties of a common language, literature,

philosophy and public polity; and it is this which has repeatedly enabled the nation to recover stability after cataclysmic upheavals. It has constantly proved itself stronger than the disruptive and separatist tendencies of the southern maritime provinces and served to restore the authority of the central government, when shaken or overthrown by internal rebellions or foreign invasions. It is a system which gratified the democratic instincts of the masses, because it enabled the studious son of the humblest parents to aspire to the highest honours in the land. Above all, it served to preserve the unbroken continuity of ancient traditions and to enlist all the best brains of the nation on the side of any government which ruled in accordance therewith.

Seen in their right perspective, against the background of the centuries, none of the acts or policies of the Manchu sovereigns, whether wise or foolish, virtuous or wicked, can compare, in its importance for the future of the Chinese race, with the new forces and new influences which were brought to bear upon it from Europe, as the result of the



EXAMINATION CELLS AT CANTON

Until the reforms of 1904 admission to the Chinese civil service had for centuries been exclusively by examination in the Chinese classics. Throughout the examination period candidates were kept in solitary seclusion, day and night, in cells like these in the Grand Examination Hall at Canton.

Photo, Wail F. Taylor

traffic and discoveries of the Dutch, Portuguese and English navigators who first invaded the profound seclusion of Asia. Regarded in the light of modern events in China, the arrival of the first Portuguese ship at Canton in 1516 (see page 3525), and the appointment of the Jesuit missionary, Matteo Ricci, as scientific adviser to the court of the Ming emperor Wan Li (1604), appear to be matters of far greater moment than the decadence and downfall of either Ming or Manchus. The history of China, stretching back to the dim ages, shows that the passive, contemplative philosophy which underlies and preserves China's civilization and social system has survived all unperturbed the rise and fall of many dynasties, the crafts and assaults of many invasions. The soul of the people has learned to regard such things as visitations

of heaven, to be endured with silent fortitude, like plague, flood and famine. But the coming of the first merchant adventurers and missionaries from Europe, by way of the newly discovered sea routes of the sixteenth century, was as the 'little cloud out of the sea, like a man's hand,' the portent of a new kind of peril which, by undermining the spiritual foundations of the Confucianist system, seems destined to threaten all those things to which Chinese civilization owes its cohesion and recuperative force.

During the first 150 years of the Manchus' rule, that is to say, until the end of the reign of the emperor Ch'ien Lung, there were Jesuits at the court of Peking. The emperor K'ang Hsi, in particular, showed them great favour and devoted much time to literary and scientific studies under their guidance,

notably that of Verbiest, famous throughout the empire for his skill in casting cannon and his knowledge of astronomy. As early as the year 1716, however, a viceroy of Canton had become alarmed at the spreading influence of the new doctrines from the West and had petitioned the throne, urging the repeal of the edict of toleration which the emperor had issued in 1692, and that foreigners should be forbidden to preach doctrines contrary to the Canons of the Sages. Later, K'ang Hsi, irritated by the magisterial attitude adopted by the pope with regard to ancestor worship and other matters, issued a decree expelling all missionaries from China, except a few to whom special permits were granted.

Henceforward the Roman Catholic missionaries, like the Portuguese, British and Dutch traders, resided in China upon sufferance, and frequently at their peril. Nevertheless, despite the increasing fear and distrust which prompted the mandarin to keep the foreign merchants at a distance



THE EMPEROR CH'EN LUNG

Notwithstanding the enlightened form of government he maintained, and his own intellectual attainments, Ch'ien Lung consistently adhered to the traditional policy of excluding foreigners and foreign influence from China. This drawing portrays him about the date of Lord Macartney's arrival in China.

From Staunton, 'Lord Macartney's Embassy to China'



ROBERT MORRISON TRANSLATING THE BIBLE

Robert Morrison (1782-1834) was sent by the London Missionary Society to Canton in 1807 and became translator to the East India Company's factory. His three great achievements were his Chinese Dictionary, the Anglo-Chinese College at Malacca and his translation of the Scriptures into Chinese.

Engraving after a painting by G. Chinnery

and to limit their activities, their numbers gradually increased, until, at the end of the reign of Ch'ien Lung (1795), they had become a constant source of anxiety to the throne. Incidentally they had also become a constant and profitable source of 'squeezes,' regularly levied by the provincial authorities at Canton and the high officers of the Manchu court.

During the eighteenth century, despite the dictatorial attitude and insatiable exactions of the mandarins, the traders' business steadily grew. In 1807 the first Protestant missionary, the Rev. Robert Morrison, landed at Canton; the 'little cloud' was already beginning to darken the horizon of Cathay. The representatives of the East India Company at Canton, holding a monopoly of the China trade, were becoming more and more restive under a policy of exclusion which compelled them to submit to conditions that were always humiliating and often intolerable. Towards the end of Ch'ien Lung's reign the question had become of sufficient importance to induce the British government to send Lord Macartney as special envoy to Peking, for the purpose of obtaining redress and relief from the exactions and restrictions to which British traders had long been exposed. The venerable emperor received with courtesy

the strangers from afar; but the mission produced no improvement in the attitude of the mandarins; on the contrary, the indignities which the traders at Canton had to suffer at their hands gradually increased to a point where they became intolerable, and a resort to force inevitable.

It has been said so repeatedly that Great Britain's first war with China was fought to compel the Chinese to allow the importation of opium that, by sheer force of reiteration, the statement has become very widely accepted. The easily verifiable truth of the matter, admitted by all competent historians, is that, after two centuries of intercourse between Europeans and Chinese

at Canton, the only possible alternatives to war were either complete abandonment of the position or abject submission to the petty tyranny of the mandarins. The secretary of state for foreign affairs put the matter quite clearly, four years before



LORD MACARTNEY

George Macartney (1737-1806) had proved his ability in diplomacy and governorship in Russia, Ireland and India before going to China in 1792 as first British ambassador to Peking. He was created Earl Macartney on that appointment.

From Staunton, 'Lord Macartney's Embassy to China'

the dispatch of Lord Macartney's mission, when he wrote

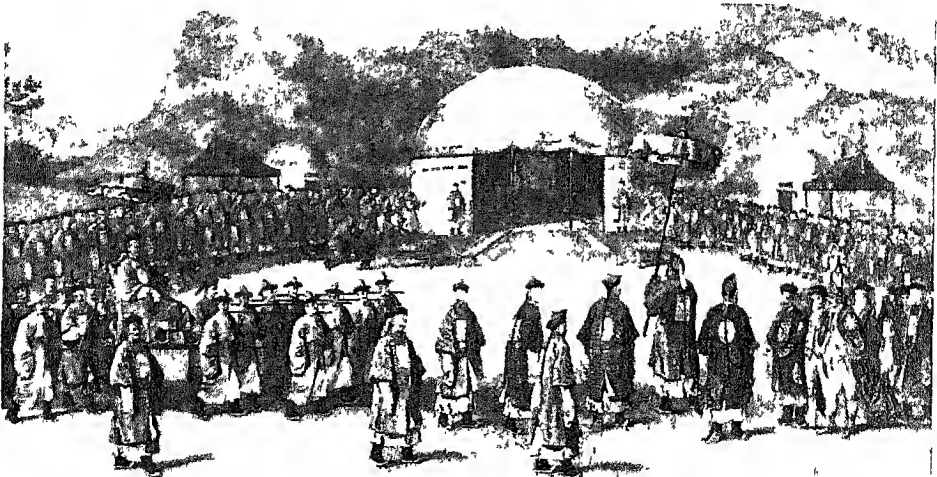
Great Britain has long been obliged to pursue this trade under circumstances the most discouraging hazardous to its agents and precarious to the various interests involved in it. At Canton our superintendents are kept altogether in a most arbitrary and cruel state of depression in comparison with the very important concerns entrusted to them and such as one hardly supposed could be exercised in any country that pretends to civilization.

The opium dispute was merely one of several burning questions, the cause of the trouble which led inevitably to war lay far deeper than in any question of trade or treaties. It lay in the opposition between two different race minds and philosophies between the dynamic mobility of the West and the static equilibrium of the East. In so far as the attitude of the Chinese represented their instinctive perception of these differences and of their own weakness, it was justifiable, for them, the prudent path of wisdom undoubtedly lay in keeping the foreigner at arm's length and discouraging by all possible means his endeavours to invade the serene seclusion of the Middle Kingdom. It was the natural attitude of a race fully convinced of its intellectual

and moral superiority and at the same time aware of its inability to face the ordeal by battle.

It is worthy of note that the arrival of the first British envoy to the court of Peking should have synchronised with the end of the reign of the last of the warrior emperors of the Manchu dynasty. Ch'ien Lung, like his father and grandfather before him, had maintained the military efficiency and martial spirit of the Imperial Clans during the sixty years of his reign and had given peace and prosperity to the nation. By keeping the palace eunuchs severely in their place he had preserved the court from the abuses and demoralisation which their ascendancy had produced under the Mings and was destined to produce again under his successors. His son, the emperor Chia Ching inherited an empire of wide frontiers and great prestige but it was an empire whose population had increased during a cycle of peace and plenty to the saturation point at which, failing the strong hand of authority, the ubiquitous elements of unrest were bound to assert themselves.

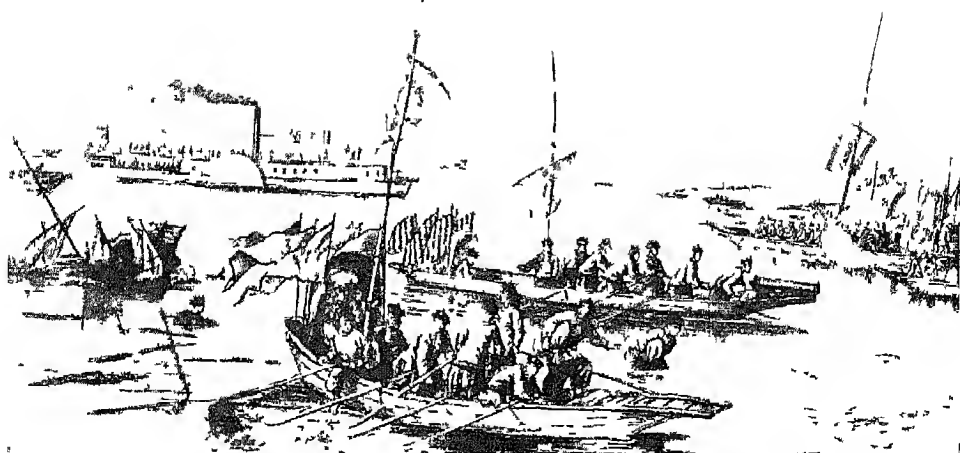
With the death of Ch'ien Lung, the Dragon Throne passed into the keeping of one who, in his dissolute person, typified the decline of the Manchu house, and the



CHINA'S EMPEROR ON HIS WAY TO RECEIVE BRITAIN'S AMBASSADOR

Official hostility on the part of the mandarins was unable to stop the influx of foreign merchants but it imposed restrictions and exactions upon them that became intolerable. It was with the object of improving these conditions that Lord Macartney was dispatched to China in 1793. The emperor Ch'ien Lung received the embassy at Jehol with every courtesy but he was inflexible in his refusal of the concessions asked for, and Lord Macartney returned home in the following year.

From Staunton 'Lord Macartney's Embassy to China'



A TAIPIING SUCCESS NAVAL ENGAGEMENT WITH IMPERIALISTS

The Taiping rebellion ostensibly an attempt to set up a new southern dynasty in the person of Hung Siu-tuan was in fact one of the periodically recurrent symptoms of over population. It was finally suppressed in 1864 by General Gordon, lent to the government by Great Britain. This drawing of the capture of imperialist gunboats by a rebel steamer is from sketches by Augustus F Lindley, who organized the Taiping naval forces and bitterly denounced British policy and Manchu corruption.

From Lin Le (Lindley), 'Taiping Tien Kwah' History of the Taiping Revolution 1866

degeneracy produced by the enervating influences of their tribute-fed ease. No sooner had Chia Ch'ing mounted the throne than all the symptoms of disintegration began to appear. Corruption and disorganization were manifested in the mandarin state, piracy and lawlessness became endemic throughout the land, while in the south the activities of the secret societies broke out into organized rebellion against the government. Six provinces were laid waste by the White Lily insurrection between 1797 and 1806. The process of demoralisation was rapid and widespread. Some idea of its rapidity may be formed by comparing the descriptions of the court and provincial administration contained in the records of Lord Macartney's mission with those of Lord Amherst's mission twenty-one years later.

The symptoms of disorder, first manifested in the White Lily insurrection, though temporarily repressed, continued to spread and to increase in strength as the moral of the central government weakened, until, forty-four years later, they took definite shape and direction against the Manchu dynasty in the Taiping rebellion. In the eyes of Chinese historians, the course of events after the

death of Ch'ien Lung signified that the Manchus had 'exhausted the mandate of Heaven,' and that before long the kingdom must be taken from them. By the aid of General Gordon's 'ever-victorious army,' and by the statecraft of the empress-dowager Tzu Hsi, the dynasty survived the Taiping rebellion, and for half a century contrived to retain its hold on the Empire exhausted by that vast upheaval, but even before the Boxer rising it was clear that it no longer possessed the fibre of resolution and other moral qualities which the Chinese people require of their rulers.

By sheer strength of will power, courage and intelligence, and with the loyal aid of one famous soldier and three great viceroys, the empress-dowager succeeded in restoring something of the prestige and authority of the Dragon Throne. Under her firm rule, for forty years after the final collapse of the Taiping rebellion (1864), the nation enjoyed comparative freedom from internal disorders and insurrections, its recuperative energies being fully engaged in repaying the devastation wrought by the rebel hordes in the central provinces. The Mahomedan rebellion, which broke out in Yunnan and Kansuh in

restored by a revolt of the central Asiatic tribes ruthlessly suppressed by his son, the emperor Tso tsung T'ang. After his son's death he succeeded in restoring the Dragon Throne all the territory that had ever come under the Manchu sway from the Yellow Sea to Kucha and Yarkand. The prestige of the Manchu dynasty was temporarily restored by this manifestation of energy, and by the unswerving devotion to her Majesty of such great viceroys as Tseng Kuo fan, Liu Kun yi, Chang Chih-tung and Li Hung chang.

The genius of this remarkable woman, loyally supported by these provincial

satraps and by the great majority of the literati was sufficient to cope effectively with the nation's domestic problems and to carry on the business of government in accordance with the principles to which the masses were accustomed. But neither her genius as a ruler nor the mental equipment of China's viceroys could permanently avert the consequences of the pressure of the West steadily increasing on all her borders as the result of the introduction of steam navigation and the outside world's increasing perception of China's commercial possibilities and military inefficiency. Tzu Hsi understood the art of government à l'orientale but

neither she nor her Manchu kinsmen had any real conception of the dangers which henceforth threatened their empire at many points defenceless alike against the man-killing devices and disruptive influences of Western civilization.

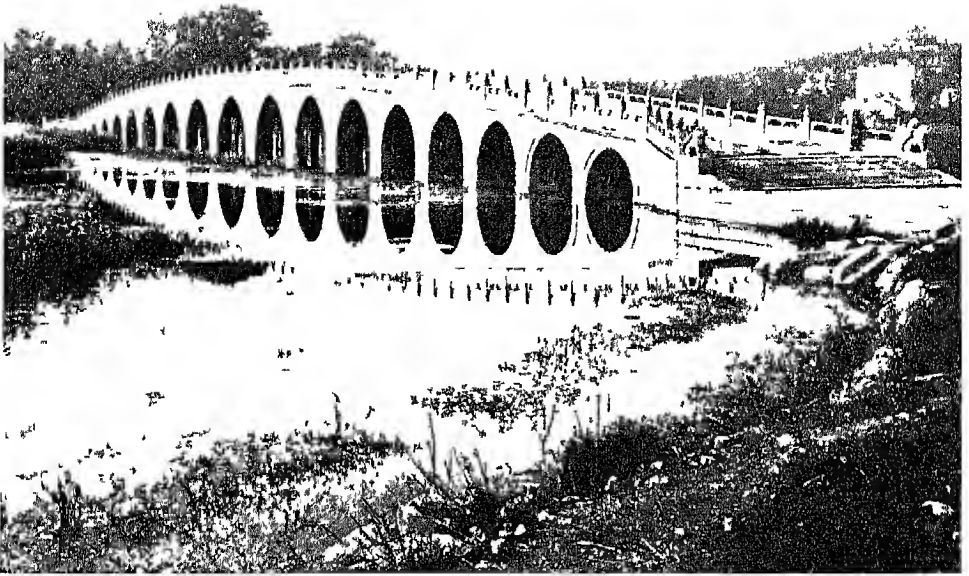
The generation which knew the empress, first as the masterful consort and then as widow of the dissolute emperor Hsien Fêng, had heard the military forces of Great Britain and France knocking at the gates of Peking. Before their pressure was released, China had signed a treaty permitting Europeans to travel in the interior and missionaries to preach Christianity. In the same year Russia, seizing her opportunity, persuaded the helpless Chinese government to cede to her all the territory north of the Amur and between the Ussuri and the Pacific. Fifteen years later China's suzerainty over Korea was challenged by Japan, in 1884 Annam and Tongking passed under the protectorate of France; in 1886 China recognized British sovereignty over Burma. In 1894 the Empire's utterly defenceless condition was clearly manifested by the ease with which her military



THE DOWAGER EMPRESS OF CHINA

One of the world's greatest women, Tzu Hsi (1835-1908) entered the seraglio of the emperor Hsien Fêng at the age of fifteen. On his death in 1861 her son came to the throne, but Tzu Hsi seized the imperial power and thenceforth remained the wise and all powerful mistress of China until her death.

Photo E N 4



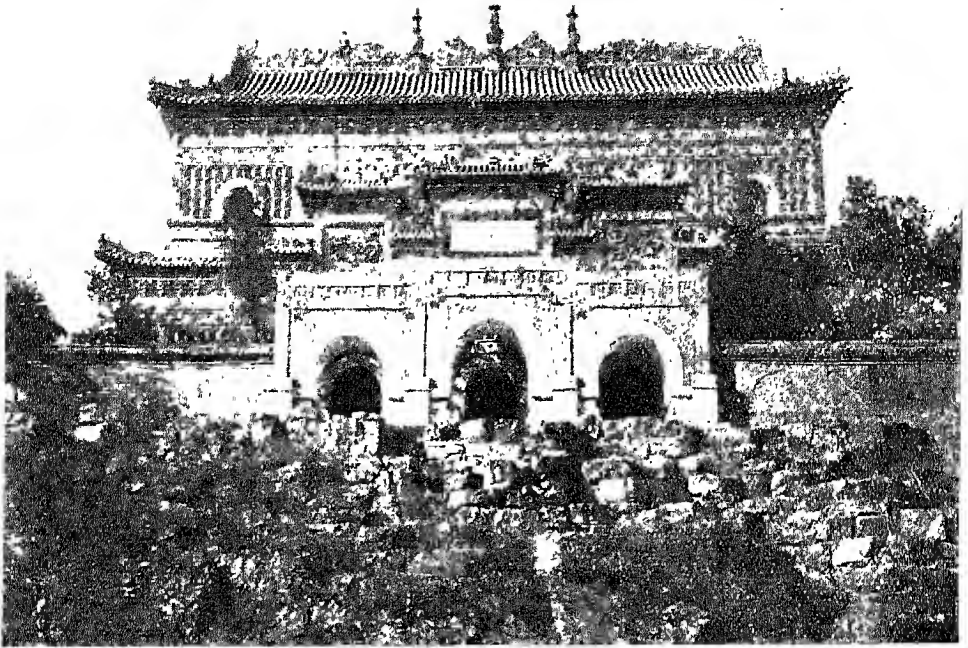
K'un-ming Hu, the lotus lake beneath the slopes of Wan Shou Shan, is dotted with islets to which access is given by marble bridges of strange shapes and perfect symmetry. This one with its seventeen arches was built by Ch'ien Lung in 1755 and leads to the ' Temple of Broad Fertility '



The lovely grounds of the imperial summer palace, or Yuan-ming Yuan, near Peking are a museum of Chinese architecture ; they were first laid out by the emperor K'ang Hsi. The palace itself remains in ruins since the sack during the allied expedition of 1860, but many other buildings, like this pavilion on a bridge beside the lake of K'un-ming Hu, were restored by the dowager empress Tzu Hsi.

BRIDGES IN THE PLEASURE GROUNDS OF THE MANCHU EMPERORS

Photo, E.N.A.



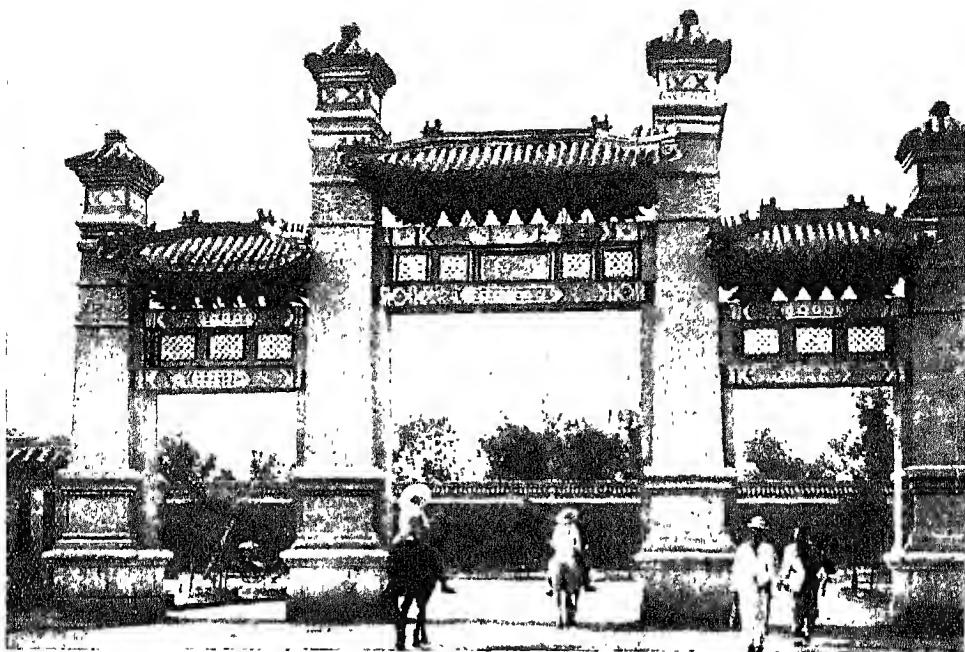
Chinese architecture has a uniformity of plan that extends even to the temples of different faiths ; only the three miniature stupas on the roof of this example in the grounds of the Yuan-ming Yuan show that it is Buddhist. A handsome 'pailou' or memorial gateway fronts the entrance.



Wood is the basis of Chinese architecture—wooden beams and columns supporting a curvilinear roof which, with its antefixes and coloured tiles (see plate facing page 3519) is the chief feature. The wall spaces may be filled in with stone, as in the temple (top), but in dwelling houses, like this sleeping apartment of Tzu Hsi in the summer palace, its place is often taken by lattice work.

WHERE THE DOWAGER EMPRESS SPENT HER SUMMER LEISURE

Photos, E.N.A.



In the days of imperial rule the Forbidden City, enclosing the palaces, was sacrosanct and unapproachable, but four 'arches of peace,' of which this is one, gave access to the Imperial City. Below are the great towers of the Ch'ien Men leading from the Chinese City through the Tatar Wall.



The names of three rulers are associated with Peking as it stands to-day: Kublai Khan the Mongol, who laid it out; Yung Lo the Ming, who largely rebuilt it on Kublai's ground plan; and Ch'ien Lung the Manchu, who embellished it afresh. It is really four cities in one: the Chinese City on the south, and the Tatar City enclosing the Imperial and Forbidden Cities like a Chinese box.

THE CHINESE GATEWAY: SCENES IN THE NORTHERN CAPITAL

Photos, E.N.A.



K'ang Hsi. Plum-blossom tea jar; white on marbled blue

Right: Yung Chêng period. Hexagonal lantern; pierced 'famille rose' panels



Chên Lung 'imperial.' Egg-shell saucer



'Famille verte' vase



Translucent egg-shell lantern



Flowers on black ground

The Manchu period represents the high-water mark of Chinese porcelain. Of all the many combinations of coloured glaze, under-glaze painting and over-glaze painting, in two or more colours, those in which green predominates (*famille verte*) characterise the reign of K'ang Hsi; those in which pale reds (*famille rose*), that of Yung Chêng. The bottom row are all K'ang Hsi, five-colour style.

CHINESE PORCELAIN IN ITS PERFECTION UNDER THE MANCHUS

Victoria and Albert Museum

and naval forces were defeated in the disastrous war with Japan; four years later, Germany's seizure of Kiao-chau was followed by a scramble on the part of the great powers for concessions and spheres of influence.

The tide of China's humiliation ran full flood. The Boxer rising of 1900 in Shantung was not only a danger signal and an indication of severe economic pressure in that region; it was, on the part of the empress-dowager and of the Imperial Clansmen who supported it, a gesture of desperation and of pride stung beyond endurance, a last passionate attempt, using the first weapon at hand, to 'drive the hated foreigner into the sea.' The triumphal march of the military forces of the allied powers through the sacred precincts of the Forbidden City foreshadowed not only the doom of the Manchu dynasty, but the invasion of the Middle Kingdom by new forces, new influences, new ideas, perilous to the very foundations of China's civilization, a menace to the philosophy which for ages had kept the race mind of the nation unperturbed even when divided by internal strife or harassed by invasions.

Until the nineteenth century the Chinese were justified, by all the teachings of their long history, in accepting with comparative equanimity the recurrence of

Western menace to China's civilization cataclysms and calamities inseparable from

their social system. The race had heard too often the thunder of the legions, had seen too often the sacking of great cities, to be greatly perturbed by any armed invasion. Its philosophy of history is succinctly summarised in the classical couplet which says: 'Divided long, unites; united long, divides.' Wanderers there might be from the national fold, rebels against the Son of Heaven, but sooner or later they would surely return to their spiritual home, and the nation be once more united from the Great Wall to the Pearl River. For ages the doctrines of the Sages, and the system of public service examinations based thereon, had sufficed to restore the immemorial order.

From this point of view, and having regard to the future of the race, the most



LI HUNG-CHANG

After winning distinction in the suppression of the Taiping rebellion and in various provincial governorships Li Hung-chang (1823-1901) became in 1875 the right hand man of the empress-dowager and a figure of international importance.

Photo, E N A

important event of the present century in China was the issue by the empress-dowager in 1904 of the edict whereby the ancient classical system of examinations for the public service was abolished, to be replaced by a new curriculum of national education based principally on Western learning and science. Chastened by the capture of her capital by the allies' armies and by the painful experiences of her exile in the provinces, she allowed herself to be persuaded into the belief that China could acquire the secret of the foreigner's material strength, as Japan had done, by encouraging the rising generation of aspirant officials to study in foreign universities, factories, dockyards and workshops. But her decree was not the outcome of a co-ordinated policy, deliberately adapted to the needs of China's national life; it was rather a politic

gesture on the part of a tired and disillusioned ruler, fully conscious of the ignorance and helplessness of her Manchu kinsmen and of the growing strength of the insurrectionary movement against the dynasty in the south.

The remarkable series of edicts issued between her return to power in 1901 and her death in 1908 clearly reflect her conviction that the only hope of maintaining the rule of her house, and preserving China as an independent state, lay in a gradual introduction of new methods of education and radical reforms in administration. Also she perceived that her avowed conversion to liberal principles and readiness to grant a constitution, after due preparation, was calculated to impress public opinion abroad and to conciliate the disaffected elements in the south, thus giving the dynasty a breathing space and a last chance of setting its house in order. Had she lived and had her proposed measures for political and administrative reform been carried out under the wise

guidance of her faithful 'elder statesmen'—Yung Lu, Yuan Shih-k'ai and Chang Chih-tung—the national system of education and the civil service might possibly have been reformed by the cautious introduction of new methods, skilfully adapted to the raw material with which China's rulers have to deal.

She and they were fully aware that no constitution could be of any real benefit to the nation until the electorate had been educated up to it and the administration organized to apply it—an elementary truth which the Cantonese 'constitutionalists' persistently ignored. Moreover, she realized, and in her edicts proclaimed, the still more important truth, that in introducing reforms care must be taken not violently to uproot the fundamental institutions, but to graft the new on to the old, 'so that officials and people may be led to understand what executive government means as a foundation and preparation for the granting of a constitution.' But Tzu Hsi died a few months after the issue of the decree in



MAIN STREET OF TSINGTAU AFTER THE GERMAN OCCUPATION

In November, 1897, Germany seized the territory of Kiaochow in the province of Shantung, a high-handed proceeding subsequently regularised by the concession of a lease of the territory for ninety-nine years, during which Germany was to enjoy full sovereign rights. Melton Prior's sketch, made shortly after the occupation, shows the Germans in the main street of Tsingtau, the chief town.

In German hands, Tsingtau was developed into a good harbour, strongly fortified.



ENTRY OF THE VICTORIOUS ALLIES INTO CHINA'S CAPITAL

In 1900, China's immemorial hostility to foreign intrusion culminated in the nationalist Boxer rising. Following the siege of the foreign legations in Peking actual war broke out in June, terminated by the occupation of the capital by a combined force of the Allied powers. This sketch by John Schönberg shows General Count von Waldersee, generalissimo of the Allied forces, attended by the American, Austrian, British, German and Russian generals, entering Peking on October 17, 1900.

which she had outlined the programme for constitutional reform, and, so far as the government of China was concerned, wisdom died with her.

The immediate effect of the abolition of the classical curriculum as the highway to official employment was to throw the whole business of national education into confusion and to send large numbers of students in search of Western learning to Japan, America and Europe. Secondary

results were speedily manifested in the well meant but frequently misguided educational activities of American and English missionary societies, rapidly followed by the ascendancy of the new undisciplined student class, organized by the Cantonese radicals, as the dominant political force in China. In its ultimate effect, the empress-dowager's momentous break with the past has served to diminish the moral authority and

restraints of the Confucianist principles, upon which China's self-contained civilization is based. It has also produced a new class of aspirant rulers who are obviously incapable of ruling, inasmuch as they profess no respect for the fundamental beliefs which constitute the inner life of the people—ancestor worship, and the basic philosophy of the Book of Changes.

Everything in the record of the 'Western-learning' intelligentsia since 1885 goes to prove—if proof be needed—that their social and political ideas can never appeal to the soul of the race, wherein reverence for the patriarchal philosophy of its ancestors has attained to the force of instinct. Throughout the centuries the Chinese people has frequently displayed its willingness to accept the government of alien rulers, if administered upon the principles to which it is accustomed; it has never manifested any disposition to allow an alien culture to modify its

ethical ideals, its outlook upon life, or social structure. Herein, then, lies the central factor which differentiates the chaos prevalent in China since the overthrow of the Manchus from that produced by the violent ends of earlier dynasties. As the result of the infectious influence of the West, China stands threatened to-day with the loss of that great inheritance of philosophy which in the past has successfully carried her through many perils of change.

The revolution which overthrew the Dragon Throne in 1911 means therefore something more than the customary crisis in the Chinese organism;

it may even mean, in **Factors making the course of one or two generations, a collapse of the whole venerable structure of Chinese civilization.** The history of the race would appear to justify the hope that the deep-rooted qualities which have hitherto enabled it to survive the consequences of its own defects and of alien invasions will in the end triumph over the dangers that now encompass it. If it should not be so, then with the old order must perish all that which has made China worthy of admiration and reverence—the inspiration of that conscious, cohesive national life which is a direct expression of the wisdom of the Sages, and of a political morality closely identified with the laws of nature which, with all its faults, has stood the test of time. The glory that was China, a system of civilization whose external manifestations are deep-rooted in permanent realities, the type of human being who in his daily life, howsoever humble, demonstrates the eternal truth that contentment comes from within—all these are the result of education in the principles of Confucianism, and must stand or perish with those principles.

Another new factor, making for national disintegration, was created when, after the introduction of steam navigation, the inhabitants of the south-eastern maritime provinces began to seek relief from economic pressure by migrating to the Malay States, the Dutch Indies, the South Seas and the Pacific Coast of America. For some time before the downfall of the Manchu dynasty the growing



THE LAST MANCHU EMPEROR

Born in 1906, Hsüan T'ung succeeded Kuang Hsi in 1908. He was deprived of his throne in 1912 after the revolution; in 1924 his title of emperor was abolished and he became an ordinary citizen under his personal name, Pu Yi. From Backhouse and Bland, *'China Under the Dowager Empress'*

influence of large and prosperous communities of Chinese overseas—practically all southerners—had proved itself to be a disruptive force, possessed of new material resources and imbued with new ideas, which made it something far more significant than the old traditional antagonism between north and south. Throughout Chinese history the inhabitants of the Kwang provinces and Fukhien have been distinguished from the more rigidly localised and passive population of central and northern China by their restless and rebellious tendencies; but sooner or later, after the paroxysms of civil war and rebellions, they had always resumed their place as members of the great celestial family, impelled and held thereto by the cohesive force of the doctrines of Confucianism and the civil service. Even after prolonged insurrectionary movements, such as those against the first Manchu sovereigns and the Taiping rebellion, the southerners' tendencies to political separation had eventually yielded to the inherent force of common traditions, language and beliefs. They, like the northerners, were bound to their ancestral homes by the cult of their dead, and generally impelled by ambition and self-interest to accept Peking as the centre of the Chinese system.

But the nineteenth century brought to the knowledge of the inhabitants of these densely crowded maritime provinces new outlets for their restless

Emigration and its consequences activities and a new prospect of relief from intolerable economic pressure.

It was a natural result of Canton's long monopoly of trade and direct relations with foreigners, and of the cumulative effect of the southern provinces' experience with them in trade and war, that the teeming millions of Kwangtung and Fukhien should be the first to perceive and grasp the opportunities created by the new means of communication with the outside world. The practical monopoly which they rapidly established in the control of emigration to the United States and the Philippines, Malaya, Siam and the South Seas represented not only a quick-witted perception of the value of the



DR. SUN YAT-SEN

Sun Yat-sen (1866–1925), a westernised Cantonese, was an organizer of the revolutionary party which overthrew the Manchu dynasty in 1911. After Yuan Shih-k'ai's acceptance of the Presidency he became the leader of the Southern party.

Photo, Elliott & Fry

opportunities created by the 'open door' overseas, but their readiness to adapt themselves to radically new conditions as an alternative to collective starvation. Between 1870 and 1910 about ten millions of southern Chinese workers found new homes overseas, and gradually, as their economic superiority asserted itself, a new outlook.

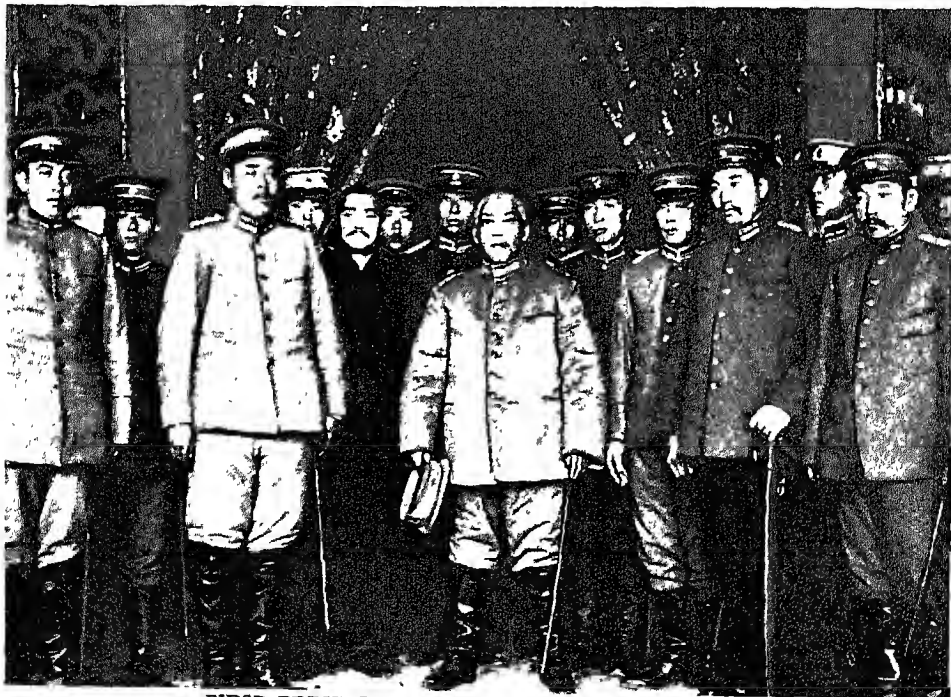
In 1868 the United States, unaware of the real nature of the Yellow Peril, placed on record in the Burlingame Treaty its belief in 'the inherent and inalienable right of man to change his home and allegiance and the mutual advantage of free immigration.' By the time, twelve years later, when this sentimental delusion had been dispelled and the first Asiatic Exclusion Act applied, the large Chinese communities overseas had not only acquired sources of wealth, which have since played a very important part in Chinese politics, but had absorbed new ideas, chiefly of American origin, concerning the rights of nations and individuals, and had begun to apply them by means of effective organization. The republican programme proclaimed by Sun Yat-sen in 1911 meant

little or nothing to the vast majority of the Chinese people, but it undoubtedly represented the sentiments of the Cantonese communities overseas, who saw in it the prospect of Cantonese supremacy in China and of a profitable movement for the recovery of the financial control and extra-territorial privileges exercised by foreigners.

In the years which have elapsed since the Revolution the disruptive effect of 'Western learning' in China, combined with the influence of the Cantonese residents abroad, has produced in the new generation of southerners a spirit of reckless iconoclasm, a tendency to break away from the Confucianist traditions and social system, even in matters of fundamental principle. Whether this tendency represents wide-spread and genuine convictions, or merely political opportunism deliberately invoked with a view to enlisting the support of Liberalism in Europe and America, time will show. In any event, however, as the result of the

abolition of the ancient system of education for the public service, and the influence of the Chinese colonies overseas, the lines of cleavage between the Cantonese party and the political factions of central and northern China are bound to become wider and deeper, and the prospect of a wholly united China therefore more remote.

While it is true that the inhabitants of southern China are no more capable than their northern fellow countrymen of organizing effective self-government based on democratic institutions, it may well be that the new conditions created by the impact of the West will lead them to reject the moral restraints and social ethics to which the nation as a whole adheres. In that event the natural recuperative processes which have always restored national unity in the past are likely henceforth to be impeded by difficulties of a kind for which the experience of the race provides no immediate remedy.



FIRST PRESIDENT OF THE REPUBLIC OF CHINA

China was proclaimed a republic on February 12, 1912, and Yuan Shih-k'ai (1859-1916) was appointed its first president. He had proved his statesmanship as imperial resident in Korea, and later as viceroy of Chihli his progressive ideas had great influence on the empress-dowager's reform policy after her return to Peking in 1902. In spite of his dismissal by the regent in 1909, he was always a member in the monarchical form of government for China and opposed to the republican movement.

TRADE UNIONISM: ITS ORIGIN AND GROWTH

How the Movement has fought its Way to Social
Recognition in the Country that saw its Birth

By E. LIPSON

Reader in Economic History in the University of Oxford; Author of *The Economic History of England: Vol. I, The Middle Ages, Vols. II & III, The Age of Mercantilism*

AMONG the forces that shape and mould modern economic life trade unionism occupies a unique position, exerting as it does an immeasurable influence on the industrial system. England was its birthplace and its growth can best be studied in its original setting. Elsewhere the history of trade unionism covers a much shorter period, and its organization is still imperfect in many countries: in England it has had a continuous existence of over two centuries and has attained its highest development.

In tracing the history of English trade unionism we may glance first at its antecedents. Trade unions are sometimes regarded as descended from the medieval craft guilds; but there are several important differences between them. The craft guilds comprised not only wage earners (journeymen) but masters, and their functions were very much wider. They were intended to protect the interests of consumer as well as producer, and to ensure good quality, sound workmanship and a just price reasonable alike to buyer and seller. A trade union resembles more closely the yeomen or journeymen guilds, embryonic labour organizations formed as early as the fourteenth and fifteenth centuries, and confined to wage earners united together in opposition to their employers. These journeymen guilds failed, however, to establish a stable and permanent organization, partly on account of the hostility of the authorities, and partly because they were always liable to lose their most intelligent and enterprising members owing to the latter becoming themselves masters.

The rise of a continuous trade-union movement dates from the beginning of the

eighteenth century, and the reason why trade unionism emerges at this particular period merits attention. Trade unionism in its origin was not in any way connected, as we might suppose, with the introduction of machinery and the growth of the factory system near the end of the eighteenth century. We must connect the beginnings of trade unionism with the constitutional changes in the latter part of the seventeenth century. The policy of the state in economic

affairs changed after the Revolution of 1688. Capital and labour, formerly controlled by the state, were now left free, in a large measure, to work out their economic problems; and the workers began to find that they must depend upon their own efforts for the maintenance and improvement of the standard of life. It is, at any rate, significant that the Revolution of 1688, which brought to a final close the era of benevolent autocracy, should have been followed within a few years by an outburst of trade-union activity. The conclusion seems irresistible that we must associate the rise of trade unionism in England with the movement in the eighteenth century towards 'laissez faire.'

We should naturally expect to find evidence of trade unionism in those industries in which capitalist influences were strongest: it is in those industries where a permanent class of wage earners had developed that the consciousness of class interests would first be quickened. Now before the Industrial Revolution capitalism was most developed in the woollen industry, particularly in the west of England,

Beginnings of
Trade Unionism

and it is here that we find the most notable examples of trade-union activity.

Admittedly, however, the Industrial Revolution gave an enormous impetus to trade unionism. Machinery reduced the wage earners to a complete dependence upon their employers, while the concentration of the workers under one roof made it easier for them to combine together. But the growth of trade unionism did not commend itself to the governing classes, and in 1799 was passed the famous Combination Act, which provided that any workman who combined with any other workman to increase his wages, or decrease his hours, was liable to be brought before a single magistrate, perchance one of his own employers, and, if convicted, sent to prison for three months. The same penalty was imposed if he attempted to persuade any other worker to leave his work, or if he refused to work with any

other person, and even if he simply attended any meeting for the purpose of reducing hours and raising wages. He was also compelled to give evidence against himself—a violation of one of the fundamental principles of English jurisprudence. This law was modified the following year in two or three respects: thus two magistrates were to act instead of one; and they must not be engaged in the same trade as the defendant. It was also provided that wage disputes could be referred to arbitration; but this provision seems to have remained a dead letter.

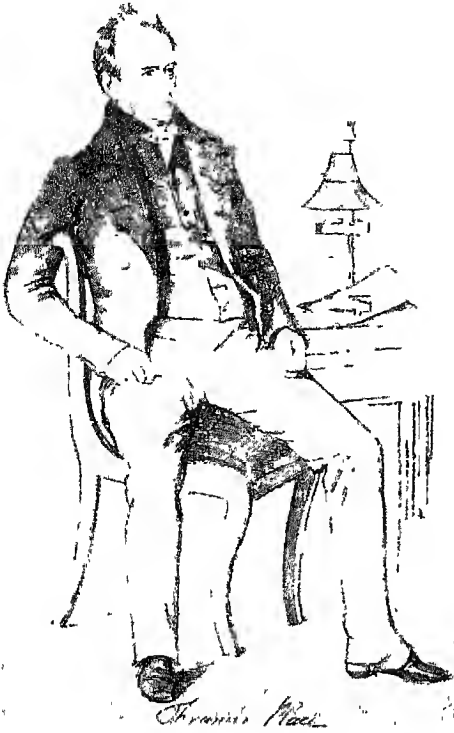
In connexion with these famous combination laws, which occupy so large a place in the history of the trade-union movement, two things must be noticed. In the first place the principle of forbidding combinations of wage earners was not new. It was stated, indeed, by a member of Parliament that there were at the end

of the eighteenth century no fewer than forty laws directed against combinations in particular trades. The novelty of the act of 1799 lay in the fact that it was a general act—it penalised all combinations in all industries. Moreover, earlier statutes had been framed on the principle that the regulation of wages and apprenticeship was the function of the state, and that trade unions could not be allowed to override and supersede the proper legal machinery. But the act of 1799 was not framed on this understanding, for Parliament was now definitely opposed to the legal regulation of wages or apprenticeship. And further, the act was largely political. The French Revolution had created a panic in the minds of the governing classes in England. It put back the reform of Parliament a generation, and it was also responsible for a crop of repressive legislation that has given to the period a sinister aspect. Thus the govern-



MARTYRS IN THE CAUSE OF LABOUR

By common law, and under the Combination Act of 1799, any combined action by workmen was illegal and punishable with imprisonment. In 1763 there was a tailors' strike, commemorated in this contemporary print of tailors in prison, but with their distress relieved by gifts from sympathisers

**FRANCIS PLACE**

Francis Place (1771-1854), a leather breeches maker, organized a union of his trade in 1793 and devoted himself to reform, becoming an able and practical politician. His greatest triumph was the repeal of the Combination Acts

Drawing by Daniel MacIise in Fraser's Magazine, 1836

ment, dreading a revolution, prohibited associations of working men, partly at any rate from the fear that these associations would be directed to political objects.

In the second place, the workers themselves put forward demands which in the altered circumstances of the time were clearly impracticable. They demanded, for example, the prohibition of machinery, and the revival of obsolete laws restricting the number of apprentices and requiring seven years' apprenticeship. Prohibition of machinery would have meant economic stagnation. The insistence on a long apprenticeship took no account of the ease with which many technical operations could now be learnt. And, finally, it was impossible, in view of large-scale production, to restrict the number of employees that a master might employ. Thus, by associating itself

with impracticable demands, trade unionism seemed to be incompatible with industrial progress.

The history of trade unionism in the nineteenth century may be divided into four periods. The first (1800-1825) was the period of legal repression when trade unions were banned by the law of the land. The second (the 'twenties and 'thirties) was the period of militancy and revolutionary tendencies, largely inspired by the doctrines of the early Socialists. The third was the period of construction and organization, and it culminated in the legislative achievements of the 'seventies. The fourth was the period of the 'eighties when unskilled labour was brought within the scope of the trade-union movement. Trade unionism thus followed natural lines of development. Emerging from obscurity and oppression, it rioted at first in its newly found liberty, but finally settled down to the work of building up a stable and permanent labour edifice, gaining its reward in full legislative and social recognition.

The outstanding figure in the first phase of trade union history was Francis Place,

**JOSEPH HUME, REFORMER**

Beginning life in the service of the East India Company, Joseph Hume (1777-1855) started his political career at home in 1812, and for thirty years was a leading radical reformer. C. B. Leighton made this chalk drawing of him.

National Portrait Gallery, London

a master tailor of (Charing Cross, to whose devoted efforts, aided by Joseph Hume, a member of Parliament, the repeal of the combination laws was mainly due. For several years Place worked to procure the repeal, but he worked almost single-handed. The workmen did not believe that repeal was possible, and they fastened their hopes for the improvement of their condition upon an extension of the franchise. But in 1824 Parliament agreed to the appointment of a committee to inquire into the working of the combination laws, and this provided an opportunity for stating the case against them.

The strongest argument was their oppressive character. The mere act of striking was construed as an infringement of the law. The Scotch

Iniquities of the Combination Laws the English weavers, for example, struck work in 1812: the justices

found the rates which were demanded reasonable: nevertheless the men were sentenced to imprisonment. If workmen went in a body to lay their grievances before a master they could be prosecuted for combination; if they agreed to leave his service in consequence of a reduction in wages they were liable to imprisonment; if they held a meeting—even at the employer's request—or if one man merely asked another to attend a meeting, they had broken the law and were subject to its penalties. Another criticism was that, while the combination laws nominally applied to masters as well as men, it was notorious (as Adam Smith pointed out) that the masters combined with impunity for the purpose of regulating wages. A prosecution was bound to be ineffectual since the law did not compel the masters, as it did the men, to give evidence against each other. On one occasion, indeed, the masters at Nottingham held a public meeting at the police office at which the town clerk acted as secretary, and passed resolutions for joint action against their men; yet no prosecution ensued for breach of the law.

And, lastly, the combination laws had a pernicious influence because they embittered the relations of capital and labour.

" created an atmosphere of irritation will. The men smarted under a sense

of grievance. They felt that they were not at liberty to dispose of their labour to the best advantage, and they looked upon their employers as oppressors. The settlement of disputes was also made more difficult. The men were afraid to lay their grievances before an employer for fear of prosecution, and instead met in private and decided on a strike, or resorted to acts of violence. Trade unions being unlawful, the best men kept themselves in the background and refused to hold office. The extremists, therefore, took the lead, and so there was greater danger of outrage and acts of violence. On their side, the masters were tempted to take their stand on the high ground of the law and to show less inclination for compromise.

Convinced by the evidence placed before it, the committee recommended the repeal of the combination laws, and a bill was hurried through both

Houses, 'almost,' says **Partial recognition** Place, 'without the **of trade unions** notice of members

within or newspapers without.' As a result, trade unions sprang up everywhere, accompanied by an epidemic of strikes, due partly to an unwonted sense of freedom, partly to a rise in the cost of living. This aroused the employers, who had been taken by surprise, and pressure was brought to bear upon the government to re-enact the combination laws. Another committee was appointed; but the workers, though they had done little to win the repeal, now exerted themselves to retain it. So successfully was the case of the men presented before the committee that it dared not propose the re-enactment of the combination laws. Instead, it recommended that the common law, which had also been abrogated in favour of trade unions by the act of 1824, should be restored. This would have had the effect of making all associations illegal; but an exception was to be made in favour of meetings held to settle wages and hours of labour. These recommendations were embodied in the act of 1825, which legalised trade unions, but only for the purpose of settling wages and hours. Their other activities were still illegal: for example, efforts to limit the number of apprentices, to intervene in the master's conduct of his

business, or to induce any man to leave his work 'by threat, intimidation, or insults.' This remained the legal position for the next half century.

The repeal of the combination laws inaugurated the militant phase of trade unionism. This phase was due to a combination of circumstances. Attempts on the part of employers to suppress trade unions exposed the weakness of isolated unions, and discredited the ordinary methods of collective bargaining. Moreover, in 1832 Parliament had been reformed, but power was given only to the middle classes, and the restricted scope of the Reform Act seemed to show the futility of political agitation. The result was that organized labour became, for a time, enamoured of socialistic aspirations. It is at this stage in the history of the labour movement that the two streams of socialism and trade unionism commingled. For one brief moment, indeed, it appeared as if the trade-union movement would be captured by Robert Owen and completely diverted from its traditional and normal lines of development. The beginnings of this new departure may be traced to a proposal put forward by Doherty in 1829 for one 'grand general union' of all spinners in the United Kingdom. Four years later the formation of a Grand National Guild of Builders seemed to foreshadow an even more ambitious scheme, by which all the workers of the country would be combined in one national society.

Owen announced that the time was now ripe to suggest to working men 'a plan of organization by which they might in a short time emancipate themselves from the thralldom of their present condition.' The 'plan,' which anticipated what is now called Guild Socialism, was set forth by Owen in one of his addresses: 'I now give you a short outline of the great changes which are in contemplation and which shall come suddenly upon society like a thief in the night,' but without violence or injustice. 'It is intended . . . to include all the working classes in (one) great organization. . . . All individual competition is to cease; all manufactures are to be carried on by national companies. . . . All individuals

of the specific craft shall become members, and these shall include all producers of wealth or whatever contributes to knowledge or happiness.' Henceforth, Owen proclaimed, 'there shall be no more masters, no more servants.' According to the ambitious scheme with which Owen now dazzled the vision of the trade-union world, associations of producers were to supersede the capitalist organization of society, and the workers in each industry were to own and control that industry.

To give effect to these ideas there was formed in 1834 the Grand National Consolidated Trades Union, which was attended at first with remarkable success. It was rapidly joined by over half a million members, including many thousands of agricultural labourers and women. The exact policy of the union is obscure. The executive apparently contemplated the gradual transformation of trade unions into co-operative associations, for it recommended the unions to employ their own members and to open shops for the mutual exchange of their products; presumably it was intended for each union in this way to get the whole industry into its hands. But a general strike was also contemplated, and modern events give added interest to the views expressed by one of its earliest advocates, Benbow, a disciple of Owen's:

There will not be insurrection; it will simply be passive resistance. The men may remain at leisure: there is, and can be, no law to compel them to work against their will. They may walk the streets or fields with their arms folded, they will wear no swords, carry no muskets; they will present no multitude for the Riot Act to disperse. They merely abstain, while their funds are sufficient, from going to work for one week or one month; and what happens in consequence? Bills are dishonoured, the Gazette teems with bankruptcies, capital is destroyed, the revenue fails, the system of government falls into confusion, and every link in the chain which binds society together is broken in a moment by this inert conspiracy of the poor against the rich.

However, the general strike never materialised. Instead, the union found itself involved in sectional disputes over wages and hours, and in these disputes its

energies were largely frittered away. In March, 1834, occurred the famous incident of the trial and transportation of the six Dorchester labourers for administering an oath. This created a great sensation in the country and dealt a fatal blow at the National Union. The employers set to work to destroy it by refusing to employ men who would not sign the 'document,' as it was called, in which they were required to dissociate themselves from the trade-union movement. The National Union thus disappeared, its members deserting it in thousands.

Although the trade unions had been brought within the pale of the law they still remained outside the social pale.

Public opinion was almost unreservedly hostile. The lord chancellor openly declared in 1834 that 'of all the most pernicious devices that could be imagined for the interests of the working classes as well as the interests of the country at large, nothing was half so bad as the existence of those trades unions.' The question then arises: What were the causes of the unpopularity of trade unions?

The first ground of complaint against the trade unions was their secrecy. The privacy in which they shrouded their proceedings and the oaths they imposed were inspired originally, no doubt, by motives of safety at a time when it was illegal to hold meetings; but critics of the unions declared that secrecy was favoured because it influenced the minds of the ignorant. The ceremony of initiation into the society was designed to impress the superstitious fears of uneducated members. A pamphlet published in 1834 describes the reception of members into the Wool Combers' Union. The scene, we are told, is usually the first floor of a tavern, and the time eight or nine in the evening. On one side of the apartment is a skeleton, above which is a drawn sword and a battle axe, and in front stands a table upon which lies a Bible. The principal officers of the union are clothed in surplices. The proceedings open with a prayer, then the workmen who are about to be made members are admitted with their eyes bandaged. After various preliminaries

the bandages are removed from the eyes of the strangers, and they are placed opposite the skeleton. An oath is taken upon the Bible, in which they bind themselves never to 'act in opposition to the brotherhood in any of their attempts to support wages,' nor to disclose the proceedings of the lodge. The oath ends with an imprecation on the violator: 'May what is now before me plunge my soul into the everlasting pit of misery.'

The commonest charge against the trade unions was their alleged tyranny. They were believed in some cases even to have instigated the murder of recalcitrant employers and workmen. Apart from violence and outrage the unions were accused of adopting a dictatorial manner towards the employers. One example is the Builders' Union. A contemporary writer says:

The lofty and imperious tone assumed in their communications with the masters brings to mind the grandiloquent edicts of Chinese dignitaries. . . . 'We consider,' says one of these dispatches, 'that as you have not treated our rules with that deference you ought to have done, we consider you highly culpable and deserve to be highly chastised.'

They actually required one master in a strike to pay the sum of four shillings per day to each of his men for every day the strike lasted. A Yorkshire union, we are told, ordered the woollen manufacturers to pay time wages instead of piece rates. One of the manufacturers complained that his men did less work when paid on a time basis, upon which he was instructed to keep no books.

Yet another criticism of the unions was that they did no good even to their own members. It was argued that high wages attracted new hands, whom the union must support to prevent the beating down of wages; and the contributions for this purpose must come out of the pockets of those in work. The members must also bear the cost of officials and meeting-rooms, and suffer restriction of employment due to a rise in prices and a fall in demand. Again, those who arrogated to themselves, not always with justice, the right to speak

in the name of political economy also declared the impossibility of a general rise in wages as a result of trade-union pressure. The theory of the wages-fund was at this period the orthodox explanation of wages. It was thought that at any given moment a fixed portion of the wealth of the country was set apart to pay wages, so that if any section of the workers increased their wages by trade-union action they did so at the expense of their fellow workers.

Lastly, trade unions were condemned on the ground that it was disastrous to put any restrictions on capital. A rise in wages, ran the contention, meant a rise in prices; this would endanger the whole fabric of foreign trade, and workmen would be the first to suffer for their misguided efforts to improve their position. 'Were we asked,' said a writer on trade unionism, 'to give a definition of a trades union we should say that it was a society whose constitution is the worst of democracies, whose power is based on outrage, whose practice is tyranny, and whose end is self-destruction.'

It is a testimony to the solidity of the trade-union movement that, in the face of powerful hostile criticism and an antagonistic public opinion, it was able to win for itself a great place among the constructive forces of the nineteenth century. In the 'thirties barely tolerated by the law of the land and bearing the stigma of a social ban, trade unionism within half a century had achieved full legal recognition and even a distinct measure of social prestige. Trade-union officials were no longer condemned as paid agitators, but were now accorded seats in the legislature and on royal commissions, and the changed attitude of employers was reflected in a growing willingness to meet union representatives around a common board. The causes and consequences of this transformation we have now to examine.

After the failure of the Grand National Union, the fever of militancy burned itself out. The glowing projects of Owenism were discarded, and trade unionism entered on an era of constructive activity and sober practical administration. One

reason for this change was the prosperity of the country during the 'fifties and 'sixties, but another was the growth of a new spirit among trade unionists. The desire for knowledge, the anxiety to comprehend the realities of the industrial situation, became more general. The new spirit manifested itself in the institution of classes for the discussion of economic problems, and in the publication of trade journals dealing with the interests of particular industries. In one of these trade journals remarkable stress was laid upon the value of education: 'If you do not wish to stand as you are and suffer more oppression, we say to you get knowledge, and in getting knowledge you get power. . . Let us earnestly advise you to educate: get intelligence instead of alcohol—it is sweeter and more lasting.'

Moreover, trade unionism in itself exercised a sobering influence upon the workers, for it gave them a training in self-government; and Ludlow, writing of the Unions in 1867, thought this 'the most important result produced by the trade society, and one which no other form of government as yet evolved among the working classes can develop on so large a scale. No greater mistake,' he added, 'can be made than, as journalists and politicians are apt to do, to treat the mass of members of a trade society as dupes, idlers, drunkards, or incapables, their leaders as knaves, strikes for higher wages as their common object. . . They represent almost invariably the bulk of the able, industrious and provident workmen in each trade: they are habitually well governed by men fairly elected by the members as the most trustworthy, respectable and intelligent amongst them.'

The effect of trade unionism upon the character of the workmen was warmly disputed. Hostile critics asserted that the better class of workmen were losing their character of self-reliance and independence, their desire to excel and rise in the world being damped by the thralldom in which they were held by the rules of their union. But it is more probable, as the trade unions maintained, that the real tendency was to raise the character of the worker by making him

feel that he was not the helpless victim of oppression, but the member of a strong, united body, capable of defending his rights and ensuring him a resource in case of temporary need.

The spread of education, coupled with the experience gained in trade-union administration, produced a great reaction against the militant ideas of the 'thirties, which showed itself in a strenuous denunciation of strikes. One union warned

its members against what it called the dangerous practice of striking. **Reaction against militant methods**

'Keep from it,' they were urged, 'as you would from a ferocious animal that you know would destroy you. . . We implore you, brethren, as you value your own existence, to avoid in every way possible those useless strikes.' The Smiths' Union prided itself on being the original 'anti-strike' society. The preface to their rules states that at first they had indulged freely in strikes, but in 1845 a meeting of delegates decided that strikes were an unmitigated evil: they were 'battles between the employers and the employed . . . too often unwisely got up by one or both parties and continued more for the purpose of trying which shall gain the mastery over the other than otherwise.' In many cases the local branches were deprived of the power of calling a strike, for it was recognized that the authority of a branch committee was more liable to be overborne by the clamours of the rank and file. As a result the leaders of the trade-union movement were able to claim before the royal commission of 1867 that the effect of trade unionism was to diminish the frequency of strikes, and certainly the disorder of strikes.

The growing moderation of trade unionism, alike in its aims and methods, did not mean that the leaders were prepared to acquiesce in economic oppression, but they believed that their ends could be best attained by other methods. Accepting the view, which was then almost universally prevalent, that wages depend upon supply and demand, and that when the demand for labour exceeds the supply wages rise, they drew the conclusion that the best line of policy, in

order to raise wages, was to limit the supply of labour in any given trade and to restrict the amount of work which any individual might do. One method of carrying out this policy was to reduce the number of apprentices; another was to get rid of surplus labour by emigration; a third was to discourage overtime in order to make the work last longer or go round a larger number of men. The same end was indirectly secured by the prohibition of piece work, although this prohibition was defended on other grounds.

It was during the 'forties and 'fifties and 'sixties that the structure of trade unionism in its modern form was built up on sound lines. The keynote of the period is organization, and

the three features of this **Three planks of organization were: first, Organization**

the creation of a body of trade-union officials; secondly, continuity of membership; and thirdly, increased financial strength as a result of combining industrial with friendly benefit activities. Take the first point: the creation of a body of trade-union officials. As the unions grew in membership, it was necessary to have whole-time secretaries, and so there developed a body of trained officials expressly chosen for their business capacity, and uniting a sense of responsibility with a more intimate knowledge of the industrial situation. There can be no question that the growth of a class of trained officials was a most important factor in laying the foundations of modern trade unionism.

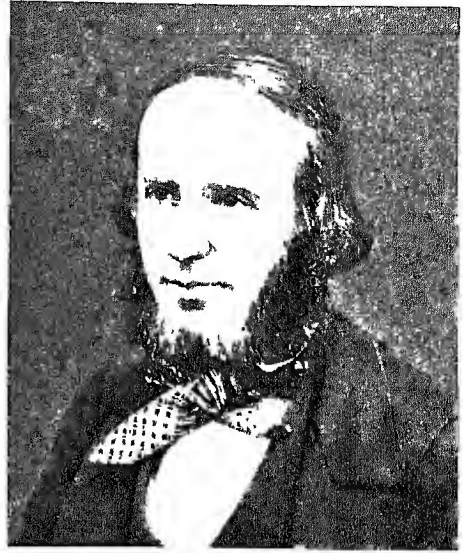
Another significant development was the evolution of a 'new model' of trade unionism, as it was then called. Instead of the trade union being purely a trade society, concerned mainly with protecting the trade interests of its members, a type of union was evolved which, in addition to its trade functions, was also a benefit society serving the purpose of an insurance society. This had the twofold result of securing for the unions additional members and larger funds. It also strengthened the hold of a union over its members, since any member who was expelled for disobedience might forfeit the superannuation and other benefits. The outstanding example of the 'new model' of trade

unionism was the Amalgamated Society of Engineers, established in 1851 out of a number of independent societies. The subscription was one shilling per week, in addition to special levies, and the accumulated funds amounted in 1867 to £140,000.

In process of time the defects of the 'new model'—that is, the combination of trade functions with insurance benefits—were revealed in the unwillingness of trade union officials to hazard the funds of their union by aggressive action. The aim of the 'new model,' in fact, appears to have been to establish uniformity of wages and hours throughout the country rather than to engage in constant endeavours to improve them. It was this combination of financial solidity and moderation of purpose which effected a revolution in the public attitude towards trade unions, and so made it possible for them, in the 'seventies, to win a greatly improved legal status.

The trade-union movement must now be studied in another aspect. It is a mistake to consider trade unionism exclusively from one standpoint: as an

industrial society for regulating wages and hours, and as a friendly society for providing benefits. It has played an important part in raising the whole level of working-class life, and takes rank as one of the great social forces of the nineteenth century. This aspect has not received the attention which it deserves. The history of the Miners' Union, in particular, furnishes a remarkable record of trade-union achievements. Macdonald, the president of the Miners' National Association, claimed before the royal commission of 1867 that the act of 1842, which forbade the employment of women and children in the mines, was due solely to the representations of the workers. Among other reforms the union pressed for more stringent laws to ensure the safety of the miners, more efficient inspection of the mines, uniform methods of weighing the coal and the right to have a check-weigher at every pit, the prohibition of truck, the punctual payment of wages and the education of the children. Fifty thousand



A CHRISTIAN SOCIALIST

Joseph Malcolm Forbes Ludlow (1821-1911) was one of the first promoters of Christian Socialism, the co-operative movement and, in 1854, of the Working Men's College. From 1875-1900 he was chief registrar of friendly societies.

Photo, Braconner

miners signed a petition in 1854 for a compulsory assessment on their wages to provide money for educational purposes. In short, the Miners' Union placed foremost among its objects 'legislation for the better management of mines to protect the miners' lives, promote their health, and to increase among them a higher moral status in society.' Critics of trade unionism, who fastened entirely upon the efforts of trade unions to regulate wages, ignored their other activities in promoting legislative changes which otherwise might have been indefinitely retarded.

Side by side with the growing moderation and enlarged vision of organized labour proceeded another change. Ludlow, in his book on the Progress of the Working Class, published in 1867, remarked that

the offensive spirit of mastership, which sought to carry everything with a high hand and settle all matters without considering the wishes or interests of the workers, has also greatly softened within the last few years. The capitalist is beginning to acknowledge the propriety of considering the welfare of the workers whose help he needs. He has almost ceased to insist upon his right to do all things in his own way simply because the capital is his.

The changing attitude of employers manifested itself in two directions—in the willingness to meet their men around a common board, and in the willingness in some instances to foster community of interests between capital and labour by admitting labour to a share in profits.

Nevertheless, the old type of employer who refused to recognize the trade-union movement, or to admit the principle of collective bargaining, yielded ground slowly. He was represented at the royal commission of 1867 by Nasmyth, the great engineer, a relentless opponent of trade unionism, who refused to deal with men except 'one at a time.' Yet Nasmyth's own career furnished an instructive commentary upon the results which his attitude towards organized labour provoked:

I was so annoyed with walking on the surface of this continually threatening trade union volcano that I was likely to burst out at every moment that I was glad to give it up and retire from the business at a period of life at least ten years before the age at which I otherwise would have retired. . . . And I am the envy of some engineers. They say: 'You are a lucky fellow, Nasmyth; you took down your sign-board at the right time'



AN ENLIGHTENED EMPLOYER

Anthony John Mundella (1825-97), a Nottingham hosiery manufacturer, established the first conciliation board for the settlement of trade disputes in 1866. As president of the Board of Trade in 1886 he created the labour department.

The new type of employer, on the other hand, sought to solve the labour problem in other ways than by taking down his sign-board. Mundella, an example of the enlightened employer who had moved with the times, endeavoured to develop new relations between capital and labour on the lines of arbitration and conciliation, while the principle of profit sharing was also attracting attention as a means of attaining industrial harmony. Thus the pressure of trade unionism was gradually winning for the worker a new status as an equal partner to the industrial contract; and, in the face of this momentous development, employers were constrained to recognize that their business was no longer their business alone. This was the starting point of a new order of things.

We now enter the period of the 'seventies when trade unionism reached its climax in the attainment of a new legal status.

The legal insecurity of the trade unions was brought home to them by an event which happened in 1867. The unions had begun to accumulate large funds, and at this time they had over a quarter of a million. It was suddenly discovered that these funds had no legal protection. In 1867 the Boilermakers' Society summoned the treasurer of a Bradford branch for embezzlement. The magistrates ruled that, as unions did not come under the Friendly Societies Act, their funds could not be protected. The decision in the case of the Boilermakers was confirmed upon appeal, when the judges also declared that the union was illegal on the ground that its objects were in restraint of trade. To understand this legal pronouncement it must be remembered that the law of 1825 had legalised trade unions expressly for two purposes, and two purposes only: the regulation of wages and hours. Now nearly all trade unions had rules relating to piece work, overtime, the number of apprentices, etc., rules which, according to the law of the land, were 'in restraint of trade.' Hence trade unions were unlawful associations according to the act of 1825, and their funds therefore were not protected by law.

The same year which witnessed this legal bombshell also saw the political

emancipation of the working classes when the Reform Act of 1867 gave the vote to working men in towns, and the unions were not slow to use the political power they had acquired. The Liberal government in 1871 recognized their power by bringing in a bill under which no trade union was to be considered illegal on the ground that it was in restraint of trade. Further, every union could be registered as a friendly society and so receive protection for its funds; and finally no trade union could be sued in a court of law. It seemed as though trade unionism had secured everything which it desired, but the bill was found to contain a serious flaw. While trade unions now obtained full legal recognition and protection for their funds, their action was restrained by the prohibition of peaceful picketing. This prohibition largely nullified the advantages which the trade unions had gained in other clauses of the bill.

The question of picketing plays a large part in trade-union history. It involves the fundamental problem

The question whether a trade union may
of Picketing bring pressure of any kind to bear upon a workman who remains outside its ranks and claims the right of 'freedom of labour.' The act of 1825 had made it penal to induce any man to leave his work by threat or intimidation or insult. A subsequent law (1859) enacted that it was not illegal to persuade others to cease work, provided it was done in a peaceable and reasonable manner, without threat or intimidation. This was considered unsatisfactory since it left the judges to interpret what was reasonable. The method of persuasion adopted in the event of a strike was to post members of the union at all the approaches to the works where the strike was in operation, and it was the task of these pickets to influence men from accepting work there. A writer in the 'thirties gives a graphic description:

When a strike has taken place in any factory men are always stationed to keep watch on the building, and also on every avenue leading to it, whose business it is to prevent fresh workmen being engaged in the place of those who have turned out. Every labouring man who appears to be seeking employment in the direction of the factory,

or—having accepted employment in it—is returning from it, is stopped and interrogated, and should he prove refractory is threatened or maltreated. This system of picketing mills has been carried to the greatest extent in Manchester, where the obnoxious factory is always watched by five or six men, unknown in the immediate neighbourhood, and who—on a given signal—can be reinforced to the extent of three hundred. These pickets are regularly relieved by night and by day . . . so that an establishment is not infrequently kept in a state of literal siege: no one can enter it or leave it without danger of molestation, and if fresh workmen have by any means been introduced, beds and provisions are prepared for them within the walls of the factory.

The case in favour of picketing was presented by Applegarth, secretary of the Carpenters and Joiners Society, who addressed the commissioners as follows:

It is perfectly justifiable for men to appoint other men to wait at a shop door and say to those who come: 'The men were dissatisfied with the terms upon which they were working at that place, and if you go in you will go and undersell us: now we beg that you will not do that.' That is as far as I would justify the men in going. If they use threats and coerce or intimidate, that is beyond the instructions, and which the laws of the society gives them. . . . If they did not do what I have justified, it would be absolute folly to strike in many instances . . . If you gentlemen imagine that all those men who come to fill other men's places when they are on strike are models of excellence you are quite mistaken . . . There are a class of men in all trades who make it a business to find where strikes are pending. The men are obliged to support them to keep them from filling their places. They come for the strike pay and the beer attending it.

Others, again, expressed the opinion that in a strike threats and persuasion were convertible terms, and they recommended that, just as violence and threats were penal, so persuasion should be made penal. The government came to the conclusion that picketing implies in principle an interference with the right of non-unionists to dispose of their labour as they think fit, and it inserted a clause in the bill which prohibited peaceful picketing. The trade unions raised a great outcry, but the only concession which the government would make was to divide the bill into two, and embody the clause relating to picketing in a separate bill, which was

known as the Criminal Law Amendment Act. The general election of 1874 gave the trade unionists their opportunity. The Liberal party was defeated and a Conservative government came into power. At this election, for the first time, two Labour members entered the House of Commons, Alexander Macdonald and Thomas Burt. The Conservative government recognized the power of the trade unionists by repealing the Criminal Law Amendment Act of 1871. This legalised a limited degree of picketing.

The 'seventies also saw an attempt, associated with Joseph Arch, to spread trade unionism among agricultural labourers. Trade



PARLIAMENT'S FIRST LABOUR MEMBERS

Both Alexander Macdonald (left) and Thomas Burt (right) started working life in the coal mines, and in 1874 they shared the distinction of being the first labour men to be elected members of parliament. Burt became parliamentary secretary to the Board of Trade in 1892, and in 1906 a privy councillor.

Photo (right), Russell & Sons



THE FARM LABOURERS' FRIEND

Joseph Arch (1826-1919), a Warwickshire labourer, devoted his life to the interests of his class. In 1872 he founded the National Union of Agricultural Labourers, and in 1885-1900 represented West Norfolk in three parliaments.

unionism has always been backward among farm labourers. In other industries the advent of the Industrial Revolution has done away with the isolation of the worker. The factory system serves to concentrate great masses of men under one roof, and the result has been not only to render possible concerted action among them, but to imbue them with a consciousness of economic power. But the changes brought about by the Agricultural Revolution during the same period produced the opposite result. The open-field system of cultivation has vanished from the face of England, and with it has gone the system of intermixed holdings and joint husbandry. The inhabitants of a village no longer work side by side in the fields, associated together in a general partnership, and carrying on in common all the chief farming operations. The English countryside is now covered with hawthorn hedges and ring-fenced farms, and the labourer stands alone, like the tiller of the soil in Millet's famous picture. The scattered condition of the rural population appeared to oppose an insuperable obstacle to the development of a vigorous trade-union movement. The individual farm worker lacked the confidence which is instilled into a crowd by the security of numbers. Moreover, his exiguous resources did not easily stand the strain of a weekly contribution to the trade-union funds. The difficulty of carrying

on propaganda work in these discouraging circumstances was extreme.

In the 'thirties many thousands of farm labourers had joined Robert Owen's movement, but this soon collapsed. After

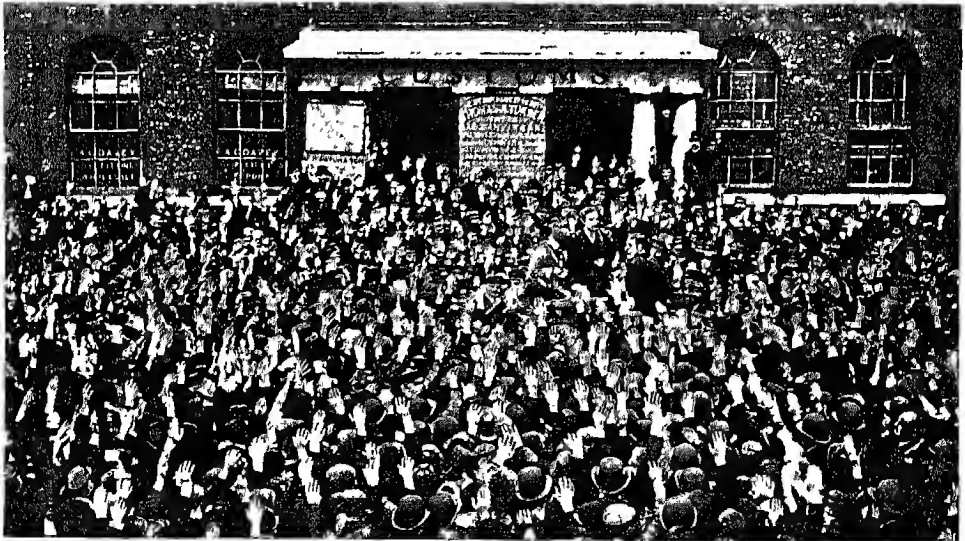
an interval of forty years

Trade Unionism & Agriculture a new movement started in Warwickshire, in 1872, under the inspiration of

Joseph Arch. The movement attracted the attention of the press, and public sympathy was aroused. The National Agricultural Labourers' Union was formed, and by the end of the year counted nearly 100,000 members. Other trade unions came to its support, recognizing that underpaid labour in agriculture is a menace to organized labour in towns. The farmers retorted with a lock-out. They were unwilling to concede to the labourers the right to combine and the right to strike. The movement which had commenced auspiciously was not maintained. Agriculture now began to enter upon a period of acute depression, owing to the influx of American corn. Under the altered circumstances the labourers found it useless to strike for higher wages, since arable land was everywhere being laid down to grass with a consequent reduction

in the number of men employed. In 1881 the numbers of the National Union were reduced to 15,000, and thirteen years later they had fallen to 1,100.

We now reach the period of the 'eighties and 'nineties. The outstanding event of this period was the emergence of unskilled labour. The great mass of unskilled workmen were outside the trade-union movement. It is true that at various periods in the nineteenth century unskilled labourers had been brought within the trade-union movement—for example, in Owen's union (the Grand National Consolidated Trades Union), but this was a temporary phenomenon. The reasons for their exclusion from the movement were the high weekly contributions and, in some unions, the fact that admission was only through apprenticeship. 'The great bulk of our labourers,' wrote John Burns, 'are ignored by the skilled workers. It is this selfish snobbish desertion by the higher grades of the lower that makes success in many disputes impossible.' There was thus a real danger that the trade unions would be confined to superior workers, the aristocracy of labour, and isolated from unskilled labour—with a consequent cleavage in the labour world.



'THOSE IN FAVOUR'—STRIKERS AT THE INDIA DOCK

Organization of workers employed at the docks was a matter of exceptional difficulty owing to the vast numbers of unskilled and unemployed men always competing for casual employment. But the condition of these casual labourers aroused compassion and in the dock strike that began in August, 1889, public opinion helped them to obtain most of their demands. The strike was led by Benjamin Tillett, who organized the Dockers' Union, now associated with the Transport Workers' Federation.

The situation was transformed by the great dock strike in 1889, a famous landmark in the history of the trade-union movement. The success of a strike by the women employed in making lucifer matches, in spite of their lack of funds and

organization, followed by the success of the gas workers, who won a reduction of hours from

twelve to eight, stimulated the efforts to organize the dock labourers. The dockers were unorganized and had no funds, but public opinion rallied to their support and the result was that they gained their demand of sixpence an hour. In all these instances victory had been achieved in spite of weakness and the absence of organization. New unions thus came into existence, among dockers, railway workers and others, which at first were intended to be fighting unions unencumbered with sick or accident funds. Their object was to be purely the improvement of the conditions of labour, and the funds were to be used only for purposes of strike pay. In other words they were trade societies only. This was known as the new trade unionism—the 'new model' of the 'eighties. But the fact is that there were always unions which had only trade objects, just as there were always unions which combined trade objects with friendly benefits.

The reasons why unskilled labour favoured the purely trade society were partly that a union which was not burdened with friendly benefits was believed to be a better fighting instrument, less cautious and more aggressive, and partly that for poorly paid workers it was necessary to have a low contribution. Thus a union which had no friendly benefits would be recommended to the poorest workers by its greater cheapness. The refusal to combine friendly benefits with trade functions was short-lived, but the permanent effect of these years remained in the increased solidarity of the labour world. The older unions modified their exclusiveness, and greater sympathy was shown with the unskilled labourers.

Early in the twentieth century trade unionism found its legal position once more assailed. In 1900 a strike, at first

unauthorised, occurred among the employees of the Taff Vale Railway Company in South Wales. The strikers committed certain unlawful acts, and the railway company, against the advice of its own lawyers, sued for damages, not the workmen, but their union—the Amalgamated Society of Railway Servants. The case was taken to the House of Lords, and the law lords decided that a trade union could be sued for damages alleged to have been caused by the action of its officers. This meant that the trade unions were now liable for any injury or damage done by any person deemed to be acting as an agent of the union. The Amalgamated Society had not authorised the strike, nor the unlawful acts, but it was compelled to pay £23,000 in damages. The decision implied that a union was responsible for unlawful acts, even when committed by an agent contrary to its express instructions. In 1906 the Trade Disputes Act gave a trade union immunity from civil action on account of any unlawful act 'committed by or on behalf of the union.'

Shortly afterwards followed the Osborne judgement. In 1908 a member of the Amalgamated Society of Railway Servants took legal proceedings

to prevent the union using its funds for political purposes, and the

**Osborne judgement
and its results**

House of Lords gave a decision in his favour. The law lords determined, first, that trade unions were to be considered corporate bodies; secondly, that as corporate bodies they existed for certain defined purposes; thirdly, that these defined purposes were laid down in the act of 1876; and fourthly, that since political action was not expressly referred to in the act, it must be considered outside the scope of the trade-union movement. It is necessary to observe that it was not a matter of protecting the interests of a minority, because even if all the members of a union favoured political action they were prohibited by the Osborne judgement from undertaking it. The result of the judgement was to stultify all trade-union activities not included in the act of 1876; for example, even educational work. In 1913 the Trade

Union Act allowed a trade union 'to include in its constitution any lawful purpose,' so long as its chief objects were those of a trade union as defined in the act of 1876, but in the case of political objects expenses were to be met out of a political fund, from which any member was at liberty to claim exemption. The act of 1927 substituted the system of 'contracting in' for 'contracting out.'

In other directions the trade-union movement has made notable advances since the early years of the century. In the first place, there has been a great extension of membership. The number of trade unionists now exceeds five millions, and it is believed that about sixty per cent. of the adult male manual wage earners of the kingdom are organized, while the financial strength of the unions is shown by the fact that

Organization of their accumulated funds
Women Workers in 1920 exceeded fifteen millions. The unskilled workers, organized as we have seen at the end of the 'eighties, account for thirty per cent. of the trade-union membership. Women unionists were estimated in 1920 to number three-quarters of a million, though this was less than thirty per cent. of the adult women wage earners. The organization of women workers has been, indeed, one of the features of the present century. It was stimulated in particular by the Great War. Although some unions are organized exclusively for women, the majority—about nine-tenths—are members of trade unions admitting both men and women.

In the case of agricultural labourers the movement of Joseph Arch has revived, and it is estimated that the number of agricultural labourers in trade unions is about one third of the number of men employed in agriculture. Another noteworthy feature of trade-union development has been its extension to what is sometimes called the black-coated proletariat. Shop assistants have been organized, clerks (particularly those in the service of the railway companies), teachers, civil servants, actors, journalists, bank officers and law court officials.

An important development in trade unionism during the present century has

been the progress made by the unions of railwaymen. The National Union of Railwaymen affords a striking example of a 'new model' of trade unionism (this is the third use of the term we have noticed)—what is usually called to-day 'industrial National Union unionism.' The structure of Railwaymen of a trade union may assume various forms: a craft union embraces men engaged on the same kind of work, for example, cutlers or bricklayers; occupational unionism brings together people working on processes which are kindred, for example, engineers; and industrial unionism exists when the structure of the union follows the employers and brings together everybody connected with the employer. Thus the National Union of Railwaymen seeks to include even employees at railway hotels and railway printing works, and so forth. In short, instead of the workers being organized on the basis of their occupation, they are organized on the basis of the industry to which they belong.

While railwaymen have thus given a notable example of the 'new model' of trade unionism, there has grown up among the engineers a movement known as the Shop Stewards' Movement. The shop steward at first was responsible for the payment of trade-union contributions in the workshops. During the Great War he became the spokesman of the men to voice their grievances, and committees of stewards from different shops assumed control in matters relating to workshop conditions.

In these latter years organized labour has not only won a unique legal status, but it also enjoys an official status in all matters which concern manual workers. This measures the remarkable advance made by trade unionism since a century ago, when the movement was proscribed by law. This development had already begun before the Great War; for example, when the trade unions were made agents of the state in the administration of the Insurance Act. But it was during the war that organized labour secured especial recognition in all matters which affect labour. Trade unions have now gained the right to be consulted by the government,

and in this way their position has been fortified by state recognition and their dignity, prestige and strength proportionately enhanced.

Two other developments in the trade-union movement must be briefly recorded. The first is the organization of trade unionism as a definite political movement. The second is the claim of organized labour to participate in the control of industry. Organized labour no longer seeks to confine its activities to maintaining the standard of life of the workers in respect of hours and wages. Its horizon has widened, and it now seeks a share in management. Thus the National Union of Railwaymen in 1914 declared that 'no system of state ownership of the railways will be acceptable to organized railwaymen which does . . . not allow them a due measure of control and responsibility in the safe and efficient working of the railway system.' Again, the miners demand not merely nationalisation, but joint control and administration by the workmen and the state, and the institution of national and district councils and pit committees, half their members to be nominated by the Miners' Federation.

One feature of trade-union history is the change in the attitude of economists towards trade unionism. We have seen how the economists, with some conspicuous exceptions like Adam Smith and M'Culloch, were on the whole opposed to trade unionism. But it is now generally considered that, while there may be defects in the organization of labour, the benefits predominate.

In the first place, trade unionism has been one of the most important factors in raising the standard of life of the workers during the nineteenth century. It has not been the only factor, for other causes have operated to give the working community a higher standard of life at the end of the century than it enjoyed at the beginning: mass production resulting from the invention of machinery; improved methods of transport; free trade, which has cheapened the price of imported food and so left a wider margin to the wage earner for the purchase of other commodities. Thus machinery, transport

and free trade have all helped to raise real wages, that is, wages as interpreted in terms of purchasing power. Still, these factors would not have exerted their full influence but for the strength of trade unionism, which has enabled workers to reap direct personal benefit from the improved economic situation.

In the second place, it is now almost universally recognized that collective bargaining is necessary to place employers and employees on a footing of equality. Labour is a perishable commodity, and the workman who is not supported by a powerful union must take whatever wages are offered to him. Without combination it is impossible for workmen to make their voices effectively heard.

In the third place, trade unionism protects a good employer from unscrupulous rivals who seek to capture the market not by superior efficiency of management but by reduction of wages.

Fourthly, trade unionism leads on the whole to stability in industry. It prevents, as a rule, spasmodic strikes, for where the workers are well organized they tend to have a sense of greater responsibility and also a greater sense of security in the feeling that their interests are safeguarded by their own officials with an intimate knowledge of industrial conditions. Most employers, in fact, now recognize that it is preferable to deal with representatives of organized labour, since this makes for less friction in running the industrial machine.

The moral effects of trade unionism in inducing a feeling of confidence, and increasing the self respect and dignity of the workmen, must also be taken into account. And, finally, trade unionism, in so far as the members of the union are alive to their responsibility, gives a training in democracy. These moral and political effects of trade unionism have an economic reaction, because they make for greater intelligence, and so help to produce the type of artisan that modern economic conditions necessitate; for the modern machine demands of the worker intelligence, high character and regularity of conduct.

ECONOMICS AND THE MENACE OF WAR

How human Thought and Action in the Years before
and after 1914 were affected by Economic Necessities

By Sir L. CHIOZZA MONEY

Parliamentary Secretary to the Ministry of Shipping, 1917-18; Author of *Riches and Poverty*,
The Nation's Wealth, etc.

IN the century which clasped between Waterloo and the outbreak of the Great War of 1914-18 the modern industrial system had its growth, and mechanical means of transport at last made possible the effective distribution and employment of the world's natural wealth. The factory system had its origin at the end of the eighteenth century (see Chap. 163); but it was not until the nineteenth century that machine production made enormous progress, and when it got well under way the population of the industrial nations grew by leaps and bounds. If we are to understand the increasing pressure of economic forces during the nineteenth century and those first fourteen years of the twentieth century that preceded the greatest war of history, we must realize that the populations of Europe made comparatively small progress until means were found to produce wealth in great quantities.

It had always been a problem, not of producing new births, but of finding means of keeping children alive. Thus, during the first half of the eighteenth century, the population of England and Wales was almost stagnant; in 1700 it was roundly 5,800,000 and in 1750 it had grown to about 6,300,000. Yet, as we know, large families of ten, twelve or fourteen children were the rule; the majority of the children born failed to survive because of a condition of natural poverty. Then came the turning point, the year 1750, in which iron was first successfully smelted with coal fuel, and in which also James Watt first had his attention directed to Newcomen's atmospheric steam engine (see page 435),

which led to his own wonderful series of engineering devices. With the getting of coal on a comparatively large scale, with the production of considerable quantities of iron, and with the consequent inventions of machinery made of iron, the population began to grow apace. The stagnant conditions of 1700-50 passed, and in 1750-1800 the population of England and Wales grew by about 50 per cent. The figure for 1801 was 8,900,000, which, added to 1,600,000 for Scotland and 5,000,000 for Ireland, gave the United Kingdom an aggregate population of 15,500,000. Thereafter the pace accelerated, and in 1901 the United Kingdom, despite a fall in the population of Ireland, numbered 41,500,000 people, which again increased by 1914 to 46,000,000 people. We have to notice, also, that the major growth occurred after the invention of the locomotive and the steamship.

Mechanical transport was to transform the world in all its activities. There is no more remarkable fact in history than that **The New Wealth** the armies which fought **and big armies** at Waterloo could move no more quickly than the legions of Rome 2,000 years before. The transport of the world had not altered for thousands of years; the horse in 1815 could pull no more weight and move no more quickly than on the Roman roads of A.D. 15. Indeed, the magnificent organization of the Roman roads makes it possible to say with truth that the armies of Caesar could move on land more swiftly than the armies of Napoleon. But the railway and steamship changed alike the conditions of peace and war.

They carried fuel and raw materials to factories, they carried exports of manufactured goods to pay for raw materials, and in war they were to make it possible to conduct operations on a scale hitherto undreamed of. In multiplying wealth they multiplied populations, and in multiplying populations they multiplied the masses of soldiery which could be wielded by the dictators of warlike operations.

The rapidity of the British rise to affluence, from a condition of stagnation in which British industries were unimportant in Europe, may be illustrated by reference to what

Tremendous growth of populations became the nation's chief industries.

Whereas in 1740 Great Britain produced only 17,000 tons of pig iron, in 1806 she produced 258,000 tons, in 1835 a million tons, in 1870 six million tons and in 1913 nine million tons. If we turn to the British consumption of raw cotton, we find that whereas in 1785 it was 18 million lb., in 1811 it was 90 million lb. The figures relating to wool are equally eloquent of progress; in 1775 the wool used in the British woollen and worsted industries amounted to 82 million lb., in 1875 to 351 million lb., and in 1913 to 633 million lb. Or, if we turn to the export trade and to the first available figures for the United Kingdom, those of 1805, we find that in that year the British exports of British goods were valued at £38,000,000, whereas by 1870 they had risen to £199,000,000 and in 1913 to £525,000,000.

It was by virtue of the activities expressed in such figures as these that the British population made the enormous advance that we have already noted. Between the end of the eighteenth century and the opening of the twentieth white men had learned how to preserve life as it had never been before preserved in the history of mankind; the result was an unparalleled expansion of population—an expansion which had been deemed impossible by economic writers who could not foresee the invention of means to produce wealth on a gigantic scale. In passing, we may note that the years preceding the Great War were notable

for a marked decrease in the birth rate consequent upon the rise in the standard of comfort and the desire to restrict families within a compass which would make their up-bringing less onerous to their parents and leave more time for pleasure and recreation.

The conditions of wealth changed and populations grew, but the ancient conceptions of international fear and hostility remained. The growth of populations meant the growth of armies—the growth of what has been so expressively termed ‘man power.’ Each expansion of wealth and population, instead of being considered a proof of the power to live and grow in peace, was too often regarded as creating a new necessity for defence against possible aggression. So Europe, which had been for so many centuries impoverished and desolated by war, used the new economic conditions provided by modern science to prepare big battalions for war on a larger scale.

By her exploitation of splendid coal resources, made possible by the ingenuity of her inventors, Britain secured an astonishing lead in industrial development and became, in a well known phrase, **Economic growth and rivalry** the workshop of the world. Where before the

British people had been backward in economic development, they became exporters instead of importers of manufactures, and importers instead of exporters of raw material. Before this striking period of British inventiveness the nation had had to rely upon foreign engineers and foreign devices in many departments of work. The textile trades, pottery manufacture, paper making and other trades had been imported from abroad, and in the eighteenth century the best goods in use were gained by importation, paid for by the export of crude products.

No one has put the great change into clearer terms than Professor Stanley Jevons, who, in his work *The Coal Question*, wrote:

The history of British industry and trade may be divided into two periods, the first reaching backward from about the middle of the eighteenth century to the earliest

times, and the latter reaching forward to the present and the future. These two periods are contrary in character. In the earlier period Britain was a rude, half-cultivated country, abounding in corn, and wool, and meat, and timber, and exporting the rough but valuable materials of manufacture. Our people, though with no small share of poetic and philosophic genius, were unskilful and unhandy, better in the arts of war than those of peace; on the whole, learners rather than teachers.

But as the second period grew upon us many things changed. Instead of learners, we became teachers; instead of exporters of raw materials, we became importers; instead of importers of manufactured articles, we became exporters. What we had exported we began by degrees to import, and what we had imported we began to export.

While this great development proceeded, and Britain grew apace in wealth and population, her possible and potential rivals were out of the running. The other great European coal country, Germany, was still no more than a geographical expression, divided into many states differing in politics and in economics, with high tariffs against each other. Germany, destined to become the chief industrial country of Europe,

Competition from Germany was, in an economic sense, in embryo. There was no possibility of considerable economic development until the establishment of the German Zollverein in the nineteenth century. It was not until 1833 that the German Zollverein began to cover the larger part of North and South Germany, and it was not until the formation of the German Empire at the conclusion of the Franco-German war that German industry may be said to have obtained its full opportunity. From that time onwards German progress was remarkably rapid, and Britain experienced serious German competition in home, colonial and foreign markets.

It was with Germany as with Britain. The possession of coal and iron furnished a firm foundation for modern industry, and although she had not the long coast line that was such an asset to Great Britain, she made splendid use of her central position in Europe by establishing a fine national railway system. Even on the sea, despite her natural disadvan-

tages, she became a serious competitor. As for the United States, that modern giant of industry, for different reasons her development of great industrial resources came late in history. The smelting of iron with coal in America did not begin until long after it had become a commonplace in Britain. The country that possessed the greatest coal

resources in the world, **Late development** enormously greater than **of United States** those of any other country, made such late use of them that even in 1880 the quantity of pig iron produced by her was less than half that produced in the British Isles. It is difficult to realize how small was the population of America in times quite recent. When the Franco-German war was fought the population of the United States was about as large as that of France, and the great majority of her less than forty million people was engaged in primary pursuits.

It was between 1880 and 1890 that America and Germany began to work their great resources upon a large scale, and from that time forward the industrial supremacy of Great Britain began to wane. As recently as 1885, Britain produced as much iron as America and Germany put together. Then came the great change. Five years later, in 1890, the United States produced 9,200,000 tons of pig iron against 7,900,000 tons produced in the United Kingdom, and from then onwards the disparity increased, the American population and the American industrial production alike increasing by leaps and bounds.

To give one more illustration of economic change, it may be recalled that in 1867 the whole world produced 7,500,000 tons of iron, and that Britain produced nearly 4,000,000 tons of this world output. Two generations later, when the Great War broke out, the world was producing about 75,000,000 tons of pig iron, and the contribution of the United Kingdom was 10,260,000 tons. The last half of the nineteenth century was a period of rapid economic mutation in the world at large, and the changes increased in rapidity as time went on. New industries quickly sprang into existence and old industries

were eager to change their methods. A world which for centuries had seen trades carried on by old traditional methods arrived at conditions in which it became a commonplace for a great industry to change its processes fundamentally in a decade or less.

Amidst these changes Britain contrived to raise the standard of living of an ever increasing population; for, although there was industrial development in the world at large, markets grew as well as competitors. There proved to be room for all, and, indeed, the opening years of the twentieth century down to the beginning of the Great War saw a remarkable increase in the exports of the chief exporting nations.

Just as the rapid growth of populations in the nineteenth century meant, in the survival of international hostility, the growth of armies, so the growth of scientific industry meant the growth of armaments, the invention of weapons of precision, the building of bigger war vessels, the perfecting of the means of destroying human life. Science, which taught men how to keep their children alive, also taught them how to kill on the principle of mass production. The Industrial Revolution meant a revolution in methods of warfare, and the Europe of the century after Waterloo employed its best talents and its greatest discoveries to make possible a scale of human destruction undreamed of by Napoleon.

While world trade and industry, as we have seen, were expanding, the world's colonial development was also proceeding. The colonisation of the American continent, of Africa and of Australasia by the European nations was conditioned partly by human enterprise and partly by geographical conditions. It was natural for those countries which faced the Atlantic to breed seamen, and for those seamen to explore the high seas. That is how it came about that the great new communities of European blood came to be chiefly derived from the nations bordering the Atlantic sea-board, and of these Britain, France, Spain, Portugal and Holland became the chief colonisers. This pegging out of colonies virtually

ceased long ago. The new worlds came to be divided up among a few nations, while those who through their geographical situation had taken no part in discovery and annexation were left out in the cold. So, in 1913, Germany and Italy, two of the great powers of Europe, were almost without colonies of any particular value. In 1921 there were 12,300,000 Germans and 11,100,000 Italians living outside Europe, and for the most part living under foreign flags.

Here, too, as in commerce, there is plenty of room for misapprehension of the true meaning of things. The old conception of a colony was of a thing owned, a thing ruled, a thing tributary, and it was this conception that led to colonial resentment and colonial rebellion. But it was learned, if slowly, that people were not content to be ruled from afar by a home government necessarily ignorant of colonial needs and conditions. The great British colonies have become British Dominions as independent of home control as if they were foreign states. However, it should not be overlooked that in questions of raw material and emigration the 'possession' of independent colonies in the modern sense may still be of special importance to a mother country. The ties that exist, free as they are of obligation, do make it possible to consider economic problems in the best possible spirit, and do assist in the solution of problems of emigration. It is a continuous cause of ill feeling in some countries that there are few or no parts of the world to which their people can migrate to places under their own flag; that they are denied as foreigners the means of taking a share in the development of new lands. These are considerations which the world has seriously to face.

We have said that the experience of long years of trade proved that, while competition increased in modern times, there was room enough in the world's markets for all competitors. The point is of such great importance that we give the facts. The commercial expansion of the years 1900-1913, measured by export trade in millions of pounds sterling, was as follows for the chief countries:

	1900	1910	1913
United Kingdom ..	291	430	525
United States ..	286	356	510
Germany ..	231	367	496
France ..	164	249	275
Italy ..	54	83	100
Austria-Hungary ..	81	101	115
Holland ..	141	218	258
Belgium ..	77	136	143
Switzerland ..	35	49	55
Spain ..	32	39	42
Russia ..	76	153	150
Norway ..	10	15	21
Sweden ..	22	33	46
Denmark ..	16	27	43
Argentina ..	35	75	97

This very remarkable account of progress begins, we should note, with the year 1900, which was justly accounted one of 'booming' trade. In

Relation of Trade to War that year the United Kingdom exported £291,000,000 worth of goods, and every commentator rejoiced in the fact as being exceedingly creditable to an old-established commercial people. The figures of 1910 and 1913 compare with what was a good year, and we see that in 1913 British exports reached the remarkable total of £525,000,000, or £234,000,000 greater than in 1900. And this was done, we may observe, while America, Germany, France, Italy and indeed every other nation in the list made advances to which the adjective enormous can justly be applied. There was a certain rise in prices which affected the figures, but for the most part the growth was in actual quantity of trade. The world of commerce was increasing its dimensions at an unparalleled rate.

This must be regarded as vital to the argument. The conception that the common development of the whole world is necessarily hostile to the interests of any particular country is thereby shown to be contrary to recorded facts, just as it is entirely contrary to economic theory. The economist properly looks upon trade as a matter of mutually satisfactory exchanges, knowing that the exports of one country are the imports of another, and that buying and selling are profitable alike for buyer and seller.

Country A does not discharge a hostile broadside by furnishing exports to country B. On the contrary, it furnishes B with

goods which are bought by persons who need them for their own economic purposes. Moreover, the purpose of exports, the function of exports, is to gain imports. Great Britain does not send products abroad, either to a foreign country or to a British dominion, to get rid of them, but to pay for the all essential imports without which she cannot maintain her great population. She exports textiles to Canada to gain in exchange corn and apples, and sends locomotives to South America to gain in exchange meat and hides.

The conception that trade can be greatly affected by the possession of armaments is an inheritance from ancient days when the capture of territory and the enslavement of its population were commonly practised. For so many centuries did it remain true that the conqueror gained by his conquest not territory alone, but riches, that the ancient conception of the meaning and consequences of conquest survive, if vaguely, in the thought and in the arguments of our own day and generation. In the years preceding the Great War never a week passed without the printing of some article in which one could trace the conception of warring for trade, of warring for wealth. But a nation can no longer enslave a rival or destroy by conquest its people and its industries. While modern warfare is deadly enough, by comparison with a large population the life losses are small. In ancient times the loss of a war often meant the destruction of a people; in modern times such destruction is impossible.

It is not to deny the horror of modern warfare, nor to minimise the terrible loss of life which it entails, to declare with truth that in modern conditions it is childish to think of warfare as destroying a people. In 1928 the populations of the nations which engaged in the great contest of 1914-18 were larger than when they entered it in 1914, save perhaps for France, whose stagnation in population is due not to the effects of warfare, but to the deliberate restriction of births.

From the fact that modern warfare cannot destroy a population, it follows that

Foreign Conquest and Commerce

it cannot destroy the trade of that population, although it may seriously affect it. If country A conquers country B and destroys a certain proportion of its manhood, we may be quite sure that in the process country A will lose approximately as many men as she herself contrives to kill. Further, if country

A succeeds by warfare in crippling the trade of country B, we may be quite sure that in the process she will greatly cripple her own trade. In our time, the conqueror may be little or no better off than the conquered when it comes to making peace. The greatest economic sufferer by the Great War was undoubtedly Great Britain, and the indemnity payments she has been able to obtain from Germany, even if we leave out of account the repayment of British war debt to the United States, are a mere trifle compared with the losses incurred through the dislocation of commerce caused by the process of conquest. Emerging from the war as a conqueror, Britain found herself with an enormous army of unemployed workpeople and a crushing burden of debt.

Writing some years before the Great War began, in his book entitled *Europe's Optical Illusion*, Norman Angell very well summarised the fallacy of all modern conquest in the following words :

As the only possible policy in our day for a conqueror to pursue is to leave the wealth of a territory in the complete possession of the individuals inhabiting that territory, it is a logical fallacy and an optical illusion in Europe to regard a nation as increasing its wealth when it increases its territory, because when a province or state is annexed the population, who are the real and only owners of the wealth therein, are also annexed, and the conqueror gets nothing. The facts of modern history abundantly demonstrate this. When Germany annexed Schleswig-Holstein and Alsatia not a single ordinary German citizen was one penny richer. Although England 'owns' Canada, the English merchant is driven out of the Canadian markets by the merchant of Switzerland, who does not 'own' Canada. . . . Conversely, armies and navies cannot destroy the trade of rivals, nor can they capture it. The great nations of Europe do not destroy the trade of the small nations to their benefit, because they cannot ; and the Dutch citizen, whose

government possesses no military power, is just as well off as the German citizen, whose government possesses an army of two million men, and a great deal better off than the Russian, whose government possesses an army of something like four millions.

Nevertheless, we must remember certain things which do not seem to have been always present to the mind of the writer of the words quoted. While it is true that Britain endured a great economic loss through the Great War, although a conqueror, it is also true that she would have lost economically more heavily still if she had been a loser. For, while her trade was dislocated in a thousand places by the exigencies of war, she was still able to maintain her sea connexions and a large part of her shipping, and was in a position at the close of the war to resume business, even if admittedly on a smaller scale and in circumstances of the greatest difficulty.

Let us imagine for a moment that the Central empires had succeeded. Success would have meant the destruction of the British navy, the capture of British shipping and the surrender of the British government through the consequent failure of supplies. With so large a part of the food supply and of the materials of industry derived from beyond the seas, the United Kingdom's 46,000,000 people would have been quickly reduced by starvation, and surrender would have been forced upon them. The economic position of the British Isles is peculiar. All civilizations are artificial, but the British organization is based to such a large degree upon commerce that there must remain very great doubt whether, in the event of such calamity as the destruction of its economic basis, the trade of Britain would return in such measure as to enable her to resume her old standard of life and to support so great a population. The imagination boggles at the idea of so tremendous a catastrophe.

Even here, however, the conqueror would find his difficulties. In possession of the ports of Britain, Germany would have found it necessary herself to make provision for the conquered population. She herself would have had to organize supplies, or to allow trade to continue, to

save herself from the troublesome task of maintaining a conquered people. Some compromise would have been necessary to prevent a disaster which would have shocked the world.

Whatever the arrangements made, it is idle to ignore the fact that Britain after the conquest might have found the very greatest difficulty in recovering her old position. As emigration would have been impossible for her people, she would have had to endure an extraordinary degree of deprivation and discomfort, probably accompanied by a great increase in the death rate for a considerable period. It is impossible to escape the general conclusion that Britain would have sunk in the scale of nations and would have had to endure a very much lower scale of living. A large part

War destructive of
intangible assets
of her shipping might
have been taken from
her and much of her
carrying trade might never have returned. Productive industry no doubt would have been gradually restored, for no conquest could alter the fact that Britain possesses great coal resources and iron and limestone beds. Much of British wealth, however, is not founded on production, and it is precisely because this is true that the defeat of Britain would assuredly have had the gravest economic consequences. These are the facts which were not faced by Norman Angell in his writings, great as was the truth underlying many parts of them.

And Britain is something more than an island state. She is the head and front of a great federation of free self-governing dominions, and she exercises imperial rule in India and the crown colonies. The conquest of Britain, therefore, would have meant the disruption of the Empire, and that disruption would have had far-reaching economic consequences. And economic issues are largely bound up with others not less important. The shock to British prestige and the profound discouragement which would have ensued upon the destruction of so proud an edifice would undoubtedly have had a profound effect upon every department of British endeavour. It is idle to meet these considerations merely with the argument that

conquest of a thickly populated European territory is not worth while.

Five years before the Great War broke out, Professor Hans Delbruck wrote:

What Germany has set herself to do is to enforce such a position that German influence, German capital, German engineering and German intelligence can compete on equal terms with those of other nations.

That is a very fair expression by a German of what has been called the struggle for 'a place in the sun.'

We have already ob-
served how the world
outside the old estab-
lished civilizations of Europe and Asia
came to be colonised by seafaring
nations bordering the Atlantic. That
process left important nations without
any share in the development of new
lands, and we must not wonder if at last
a united Germany, rising to wealth and
influence by virtue of great natural gifts,
came to regard with some degree of bitter-
ness a world in which she could take no
reasonable share as a colonising power.
We must not forget that German organizing
ability, applied to a favourable territory,
would undoubtedly produce good results.
Those who know German cities and
German industries, and who have been
witness of the genius which informs their
activities, could have no reasonable doubt
that if the Germans had had a coast facing
the Atlantic, and had bred seamen, they
would have taken a great and worthy
part in world development. In large part
the same observations are true of Italy,
which remained a geographical expression
until quite recent years, and became a
great nation too late to find a place in
the sun.

The control of raw materials also came to present itself as of supreme importance. The old nations of Europe are necessarily largely dependent upon supplies of raw products from undeveloped territories. The liberal economic policy of the British Empire, however, never denied its natural wealth to the world at large, and when the Great War broke out it was even discovered that German interests had monopolised the zinc of Australia, which British capital had neglected. There is no doubt,

however, that the feeling that the world's resources were unequally divided amongst its governing powers played its part in the production of ill feeling and the growth of armaments. Traditional misconceptions about the economics of war mingled with real and practical modern issues in creating a war spirit in Europe. Political and economic prestige were counted on, and each nation saw itself as defending or enlarging its economic dominion.

So the Europe of the nineteenth and early twentieth centuries, growing in industrial power, made preparation for war not the least of its industries. Millions of men were divorced from production and made a

Huge preparation
of armaments

burden upon working populations to secure nations from feared aggression. Conscription was everywhere the rule save in the United Kingdom, and most of the finest working men of Europe became parts of a great war machine. Germany, with her long land frontiers, built up the largest and best equipped army the world had ever known. Britain, maintaining a small voluntary army which could at best do no more than place a small expeditionary force upon the Continent of Europe, rested her defences upon the maintenance of a supreme navy. In the opening years of the twentieth century it became evident that Germany was aiming at the possession of both a supreme army and a supreme navy. German fleet laws were enacted, the effects of which, failing adequate building by Britain, would have been to give Germany supremacy at sea. The German fleet law, thrice amended, ran thus in 1913:

We, William, by the Grace of God, German Emperor . . . decree . . . there shall be:

- (1) The Battle Fleet, consisting of:
 - 1 fleet flagship*
 - 5 squadrons of 8 battleships each*
 - 12 large cruisers* } as scouts
 - 30 small cruisers }
- (2) The Foreign Service Fleet, consisting of:
 - 8 large cruisers*
 - 10 small cruisers.

This meant the eventual building of 61 capital ships of the first class (i.e. the

items marked with an asterisk in the above list), and therefore an aim to possess the world's greatest navy in addition to the world's greatest army. The British government, faced with this issue, found it necessary to build capital ships in reply, and, as events showed, if she had not done so the war of 1914-18 would have ended differently. Those who had a proper respect for German industry and German ingenuity entertained no doubt that German capital ships in action would be able to give a good account of themselves. And so it proved to be. When we consider the results of the Battle of Jutland, we may indeed wonder what would have been the issue if the British government had neglected to reply to the German fleet laws.

The organization of Europe as an armed camp not only placed an enormous burden upon the shoulders of European working citizens, but, we must remember, was a **Economic loss** draft upon the productive **of big armies** powers of Europe. It is easy to forget that a soldier represents a double economic loss—that producing nothing himself he has to be supported by those who produce. The standing armies of Europe thus represent a tremendous deduction from economic power. Preparation for war is an industry destructive of wealth, save in so far as it calls out ingenuity resulting in inventions which may be useful in peace (see Chapter 178); for the most part, however, science works for peaceful purposes, and finds its productions turned to destructive employments.

The growth of modern wealth, the growth of great populations—and the correlative growth of great armies—were unaccompanied by any enlargement of the ability of individual statesmen. It is unfortunate for mankind that as the factors of peace and war increase in magnitude men do not gain any corresponding power of organization or leadership. Thus the formation of enormous armies gave men the power to launch movements on an unprecedented scale, with no more ability than was possessed by statesmen and commanders in days when armies were comparatively insignificant in size.

During most of the nineteenth century military commanders disposed of men by the hundred thousand; in the twentieth century soldiers are employed by the million. The millions have to find leaders in men whose powers of disposition are not one wit greater than, if as great as, those possessed by bygone generals who wielded forces which would have been considered negligible in the Great War.

Thus also it is with economic powers. Men of necessarily limited experience and ability find themselves charged with the conduct of gigantic economic operations whose ramifications affect the lives and happiness of millions. No doubt to some extent men rise to the occasion, but it is questionable whether the ability to deal with work and its products in great masses is possessed by more than a few distinguished men, and the chances of

finding them when they are wanted must be extremely rare. The deficiencies of men, their limitations and proneness to error, their failures of judgement, their inevitable spells of fatigue in moments of severe strain and stress, matter little when small affairs are in progress; we have to remember that when the scale of affairs is magnified enormously men are no less subject to the weaknesses to which all flesh is heir.

The Great War of 1914-18 witnessed the conscription of fighting men, the conscription of industrial power and the conscription of wealth upon a scale unknown before, but it produced few if any men capable of handling the tremendous forces which were set going. At any given moment the direction of the lives of tens of millions of soldiers and war workers was in the hands of overworked and physically weakened committees who could at best see only partially the forces under their command. Thus, errors came necessarily to be large-scale errors, and when lives were wasted it was not by the thousand but by the ten thousand. It is with war as with vehicles. A man driving a small cart can by error at worst kill one or two people. The same man at the levers of an express railway train can, with an error of

judgement no greater, cause the death of hundreds of people. When war, as in the twentieth century, comes to mean the enlistment of all the forces of a nation and their concentration upon one purpose, there are bound to be human mistakes on a scale which it is terrible to contemplate.

The economics of the Great War came to mean the enlistment of the entire working powers of the nations. This was not Commerce controlled foreseen. No one at by the government the beginning of hostilities dreamed that before the contest was ended the three British government departments which controlled ships, munitions and food would, in effect, take charge of the greater part of the national supplies. In 1918 the imports of the United Kingdom were almost entirely chosen, controlled and directed by the government in the interests of the nation. When the Armistice was signed in 1918 nearly 95 per cent. of British imports were under control. The economics of modern war cannot be understood unless we realize this. In the year 1918 British imports were roundly 35,200,000 tons, and they were thus controlled:

	Tons
Ministry of Food	12,700,000
Ministry of Munitions: munitions, metals, ores, nitrate, lubricating oil, machinery	12,000,000
War Office and Admiralty: wool, flax, hemp, jute, hides, leather, oil, steel plates, guns, etc ..	5,000,000
Timber Controller	2,500,000
Board of Trade: cotton, oil, paper, pulp, tobacco	3,000,000
Total	35,200,000

This table refers solely to imports. Of home operations, the mines, the railways, agriculture, food distribution, alcohol—all these and many more were under government control or supervision. Without previous experience of such far-reaching operations, men had to adapt themselves to unwonted tasks. There were generals in the field and generals in civilian operations, and all of them necessarily made mistakes on a large scale in dealing with affairs of such magnitude.

The Europe of 1914 had attained to a condition of economic interdependence between its component nations, and between those nations and the world outside Europe, upon which depended the welfare and livelihood of its nearly 500 million people. The interchanges between the European nations were enormous, and the imports into Europe in exchange for the exports of Europe were vital to her civilized existence. The three chief commercial nations of Europe—Britain, Germany and France—had great foreign investments in the Old and New Worlds. It is estimated that Germany in 1914 had some £1,200,000,000 invested abroad,

War & national
interdependence nearly one half of which was invested in Austria-Hungary, Russia, the Balkans and other parts of Europe. Britain's foreign and colonial investments probably amounted to £4,000,000,000, of which, however, only some £200,000,000 were invested in Europe. France had very considerable sums invested in Russia and elsewhere.

In particular, Germany's economic connexions with her European neighbours were very close. She utilised her central position to great advantage, and became the largest trader with many European countries. With her foreign trade, her foreign investments and her organizing ability Germany took a great and systematic part in the economic development of pre-war Europe. Hence the term 'peaceful penetration,' which was so frequently heard, and expressed the truth that a nation can by peaceful means do more to spread its influence and culture than by any process of conquest.

While internally the nations of Europe became increasingly interdependent from economic causes, the dependence of Europe upon extra-European supplies was always increasing with its growth of population. The demand in Europe for a higher standard of life meant, in economic terms, a demand by Europe upon the rest of the world for more food and raw materials. With the population approaching 500,000,000 (in 1921 the number was closely estimated at 453,000,000) Europe was making an enormous call upon Asia, Africa, America and Australasia for

products with which to supplement her own limited resources. This dependence of Europe upon supplies from without was by no means equal throughout the Continent, and it was most marked in the places where the standard of life was highest.

The world outside Europe, and particularly Africa, America and Australasia, owed its economic development to European enterprise and exportation of capital. In effect, Europe for many years exported to the New World railways, docks, harbours, factories and all the working apparatus of modern trade and industry. Britain played the chief part in this development. Hence the extraordinary figure of £4,000,000,000 for British overseas investments which we have already noted as existing when the Great War broke out. Other nations played a much smaller part in this economic process, but they gained much by it. The economic development of Australia, for example, mainly accomplished by British capital, enabled all Europe to gain by the resultant products. The enormous British investments in North and South America produced for the world at large supplies of food and material which were an especial gain to Europe. It is generally true that one cannot improve any part of the world without favourably influencing the world as a whole, and the more we come to realize the economic interdependence of nations, the more we realize the real interest they have in each other's progress and welfare.

An enterprising trader seeking a sphere of activity would not think of setting up business in a poor

neighbourhood with no prospects; his aim is to find well-to-do customers in a rich area. It is not a little strange that this consideration is so often neglected when international trade is discussed. A nation existing in a world of poor nations must necessarily be poor itself unless it has within its own borders supplies of everything it needs. A trading population like that of Britain, Germany, France or Italy, inhabiting a territory of definitely limited resources, must, if it is to advance

Nations benefit by
mutual prosperity

economically, trade freely with the world at large and, if it has a true economic outlook, rejoice that it exists in a world of progressive and well-to-do nations and not in one in which universal poverty reigns. Britain, a nation naturally poor, grew wealthy by trading freely with all the world and by bringing to her ports the wealth which nature denied her.

If we regard Europe as an economic unit, we see it a well endowed area and yet one which has great need to go outside its borders to supplement its own natural provisions. This important economic fact led to the great exchanges between Europe and the world outside Europe which were so marked a feature of world commerce when the Great War broke out. And what the war did was not only to break the economic links which existed within Europe, but to violate the fruitful exchanges between Europe and the New World which had done so much to raise the standard of civilization in Europe.

In such economic circumstances, war in Europe was a menace alike to the worker and to the capitalist. All the real interests of both capital and labour are opposed to war.

To the worker, selling the products of his hand or brain for wage or salary, war, by destroying or limiting the power of international exchange, lowers

War lowers the value of real earnings.
real wages

Real wages are counted in the commodities which one can obtain in exchange for one's work. The count by money received means little or nothing; the real test is what money will buy, and the intrinsic value of what money buys is determined by the facilities for free exchange. The ideal position for the earner of wage or salary is that he shall be able to exchange his earnings for any product produced in any part of the world; 'only by that means can he, as a citizen of the world, make the best use of its products. What war does is to destroy the means by which a worker exchanges his work for what the world has to offer.

So in the Great War there was the spectacle of men unable to command with their wages the first necessities of life. Things were bad enough in the Allied

countries which had access to the sea, but in the Central empires the sufferings during and after the war were indeed terrible. Hundreds of thousands perished from malnutrition. Diseases such as consumption had fell sway, and millions of European citizens carried and will carry to their graves the marks of deprivation which they and their parents endured (see page 4907).

The sufferings of the peoples through war and the economic consequences of war are, however, well known, and it is unnecessary here to dwell at length upon them. It is sometimes said that while the masses suffer through war, the capitalists and financiers make gains. We have even heard the

assertion made that capi- **Financiers do**
talists promote war to **not gain by war**
enrich themselves. What

we have said, however, of the economic interdependence of nations, and of the mutuality of interest which exists and is growing among the world's economic governing powers, forbids the conception that capitalists and financiers have any interest in war. The successful operations of modern capital can only be pursued in conditions of settled peace. It was the large measure of peace in Europe that reigned between 1871 and 1914 that enabled the continent as a whole to make such unparalleled progress in wealth and population. As we have seen, the trade of the great nations increased enormously in the opening years of the twentieth century, and there is no doubt whatever that, if the war of 1914-18 could have been avoided, the economic progress of the years 1914-29 would have eclipsed all previous records. The capitalists and financiers of Europe, in that half generation of advance, would have made further great progress in national and international economic organization, and from their point of view nothing could have been more disastrous than the actual course of events.

It is perfectly true that when war breaks out a great demand is set up for the products of certain industries, and that great immediate gains may be made by government contractors. Even for

these, however, there is no prospect of permanent gain, and indeed not a few of the British firms who took a large part in furnishing the main munitions of war suffered most severely from the economic reactions after the war. Generally, the gains accruing from war contracting are most unevenly divided; one business firm may win a fortune; another may as easily lose all that it possesses. There can be no question that economically the Great War was a terrible disaster for British mining, British shipping and British industry; and that war profiteers were an accompaniment of war operations does not in the least invalidate the conclusion that all the real and substantial financial, industrial and commercial interests of Great Britain were put to hazard and suffered disastrously. The great staple trades of Britain, cotton and wool, coal and iron, shipping and ship-building, had not even in 1929, eleven years after the conclusion of the war, recovered from the blows dealt them in a world-wide economic disaster, which necessarily affected most of all the nation that relied upon world trade and world peace for its prosperity.

It proved to be the finest and most characteristic of British industries that suffered most severely by the economic upheaval. The very trades upon which British greatness was built went to pieces, and indeed had to be deliberately torn to pieces to satisfy the greed of war. Measures were framed for safety in shipping which amounted in effect to the suppression of old trade routes and the diversion of ships from one sea to another. This strategy, while it helped to secure the safety of the nation, was nevertheless fraught with far-reaching consequences to British shipping in peace. Britain was compelled to risk her dearest and most arduously won economic possessions to secure her war position. Because ships were short in supply, she had to cut off materials from great trades. As for coal, the first factor in British prosperity, the war was merciless to British interests, and it remains questionable, after the lapse of more than a decade, whether British

coal will ever recover its pre-war position. These are considerations which affect industry as a whole, and they have as much significance for master as for man, for capital as for labour.

Nor must the human element be forgotten. Whether a man be employed or employer, his personal relations to his country and his kind are the same; he has to suffer in his own person the evils and the sorrows of war. If he has sons to give, they are given. The economic operations of war are directed by business men and officials many of whom lose their sons. How idle it is, therefore, to speak of war as affecting classes unequally; the truth is that all alike have to share the common consequences of a conflict which does not pass until the flower of a nation's manhood, drawn from all classes, has been sacrificed for uncertain ends.

The economics of war here discussed, although a matter which embraces the fortunes of the entire world and of all its inhabitants, is of peculiar importance to the white races, and especially to Europe, which is still the fountain of white civilization. The world is led by the white races, and it is to be remarked that the whites, at the most liberal estimate, amount to no more than one in three of the whole population of the world. The Great War thus appears as an internecine conflict among that minority of the world's people which is responsible for the leadership of civilization.

Such a conflict was bound to have profound reactions in the world at large. In India, in China, indeed in all Asia, in Egypt and elsewhere, the white races suffered a loss of prestige and of power which may have far-reaching consequences for the world at large, in all its activities, whether political or economic. If the white leadership of the world is to remain, the economic and political disasters which accompanied the greatest war in history must not occur again. White civilization could not sustain the repetition of such a conflict, enforced by the new implements and methods of destruction which science is still busily adding to the fighting powers of the world's governments.

What the world needs is an economic synthesis which will enable it to make the most of its limited resources. The best of the world's organizers perceive this, and despite the grave difficulties which are presented by political boundaries and customs barriers do their best to co-operate in the interests of a general economic advance. We see increasingly the formation of international associations for the improvement of industry and for the conservation of resources. These have to function in a world in which political boundary lines cut clean through natural economic fields, and in which customs barriers sever both natural and artificial links of economic communication. Nothing is more remarkable than the manner in which men, seeking to do the best for the development of industries, struggle to overcome the unfortunate political divisions and differences which are so utterly opposed to economic considerations.

There can be no possible doubt that if the resources of Europe could be used as an economic unit, just as the resources of the United States are used, there would be an enormous increment of wealth to the European peoples. Conversely, if the United States, instead of being established as an economic unit, was broken up into many political states, each with a customs tariff hostile to the other, every part of America would suffer disastrously. The progress of divided Europe, in face of constant war and preparation for war, can only be considered wonderful.

It is not that a self-contained Europe is possible, or that self-containment is in itself ideal. The world as a whole is necessarily self-contained, for it can have access to the resources of no other planet; who can doubt, however, that it would gain immeasurably if the rich resources of a larger and superior planet were open to its people? The United States, rich as it is in coal and iron, field and forest, oil and copper, lead and silver, is nevertheless dependent upon other nations for a large variety of products. A Europe united economically, or bound together by liberal commercial treaties, would not be self-contained, and would still have to seek

without its borders products which nature has denied it or given it inadequately. But there is no doubt whatever that peaceful and liberal economic intercourse within its fine area, continued for a generation, would add enormously to its economic powers and to that yearly flow of consumable wealth which we term income.

In Chapter 182 the economic chaos in Europe resulting from the War is described in detail. It is for the gravest consideration that the menace of renewed European war still remains, and that while it remains white civilization is in danger. Civilization is an inheritance, and it has no necessary permanence. It is a thing that each generation has to learn from its predecessor, and which it

may or may not continue or develop. Life is a succession of lives, a unity which may be either linked or broken by generations of decay. Human history is full of examples of the discontinuity of human progress; civilizations have developed and died again and again. If there could have been continuous development, the world of the twentieth century would be much better worth living in. The preservation of white civilization is a trust which we inherit, and which it is our duty to safeguard and uphold.

Civilization connotes much more than the development of economic powers; nevertheless, a sound economy lies at the basis of the lives of men, since they must be fed and housed and provided for. The struggle with economic forces does not end; its continuance is forced upon mankind. That is the true and worthy warfare, the real battle of life. If it is to be waged successfully, if men are to obtain more than poor results from arduous labour, they must put away the ancient conception that wealth is to be gained or sustained by war and preparation for war. The Europe of 1914 was an armed camp; post-war Europe remains an armed camp, with great additions to aerial fighting forces which menace mankind with new and swifter methods of destruction. In these circumstances, the white leadership of the world remains in peril, and a large part of the work of mankind is frustrated.



James Clerk-Maxwell (1831-79), left, working upon the concepts of Faraday, published his electro-magnetic theory of light in 1864. A development of Maxwell's theories by the German physicist Heinrich Hertz (1857-94), right, produced results upon which wireless communication was afterwards based. In 1888 he demonstrated the analogy between electro-magnetic waves and light waves.
Left, National Portrait Gallery, London



His investigation into the electro-magnetic waves discovered by Hertz led the distinguished scientist Sir Oliver Lodge (left), born in 1851, to pursue his great pioneer work of demonstrating the possibility of wireless communication. The first working system was demonstrated in 1896 by Guglielmo Marconi, born in 1874 and here seen at the age of twenty-five, whose genius lay in his immediate perception of the practical possibilities inherent in a theoretical discovery.

SCIENTISTS AND INVENTORS TO WHOSE WORK WIRELESS IS DUE

Left, photo, Elliott & Fry, right, Marconi's Wireless Telegraph Co.

SCIENCE AND INVENTION

How the Scientific Discoveries of the Nineteenth Century reacted on the World of Practical Affairs

By J. W. N. SULLIVAN

Author of *History of Mathematics in Europe*, *Aspects of Science*, etc.

DURING the nineteenth century the external characteristics of civilization underwent a greater change than had occurred in them during any preceding century. Indeed, it would hardly be too much to say that during this one century civilization changed more than it had done hitherto since the decline of the Roman Empire. This change has been so great and so rapid that it has created a new mental outlook.

The modern mind expects change; it takes change for granted. New technical discoveries of all kinds are taken as a matter of course. Nobody doubts that motor-cars, aeroplanes, wireless sets will be continually improved. Further, nobody doubts that radically new things, such as television, will speedily become practical and commercial propositions. The modern man lives in a world whose progress has become, as it were, automatic. Now it must be remembered that the whole of this outlook is new; this habit of mind is completely modern. Up to the beginning of the nineteenth century the vast majority of mankind lived in a static world. The horse and the sailing ship were, as they had been for centuries, virtually the sole means of transport, and—a very important point—communication depended on transport.

On a rapid survey of the technical progress made during the nineteenth century our attention is naturally arrested by two characteristics—the revolution in means of transport, and the revolution in means of communication. And we further notice the interesting fact that, for the first time, communication has become largely independent of transport. Much of our communication still depends upon transport, it is true. It is the motor-car,

the train, the steamship, the aeroplane that carry our letters. But the land telegraph, the submarine cable, the telephone, wireless telegraphy and telephony are means of communication pure and simple.

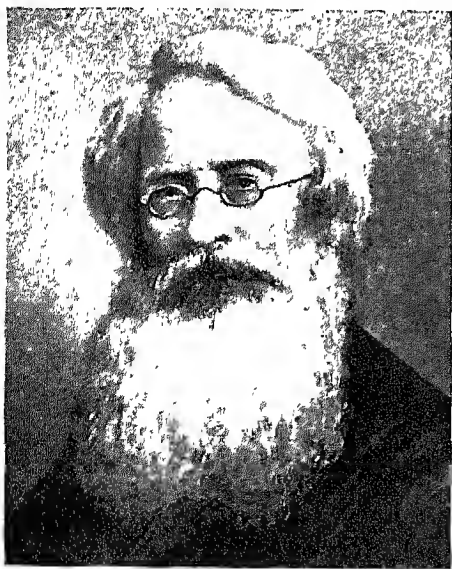
In a discussion of the scientific inventions of the nineteenth century, therefore, it is inevitable that our attention should be concentrated chiefly upon the development of means of communication and means of transport, implying by 'means of communication' those that exist for communication only. And we shall see that the histories of these two great advances are entirely different.

The one owes comparatively little to pure science, while the other is the direct outcome of the most abstract researches of the greatest scientific intellects of the time. **Communications and transport** Indeed, nowhere is the influence of science on invention more marked than in the history of our present means of communication. They are the offspring of electromagnetism, which to-day includes almost the whole of physics, the science which holds pride of place amongst all the sciences. No amount of practical knowledge and experience would have led to the invention of wireless telegraphy. That invention only became a concrete fact on the basis of certain recondite and highly theoretical speculations, supported by the profoundest mathematical analysis. The invention of the steam engine was an entirely different matter. For that only a comparatively rudimentary scientific knowledge was required, in addition to the skill and ingenuity of the experienced practical man. The one was born, the result of the severest analysis, in the dreaming mind of

a mathematician, the other was born, the result of trial and error, in the sweat and grime of the workshop

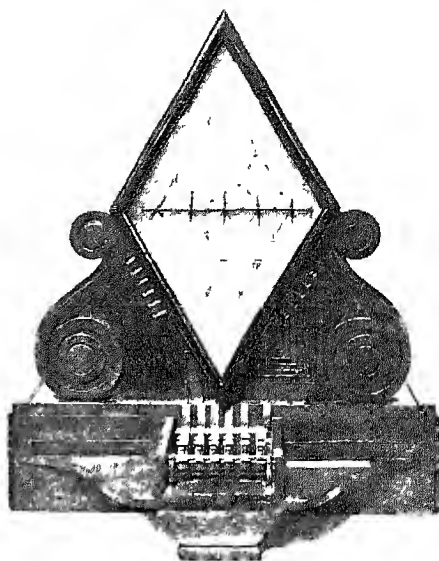
There is evidence that the idea of the electric telegraph occurred to Samuel Morse in 1832. The first telegraph line, however, was not installed until May, 1844, when it was laid between Washington and Baltimore in the United States. At that period knowledge of electrical science was in a comparatively rudimentary state. Certain simple phenomena of the electric current had long been known, and its generation by chemical processes had become fairly familiar. But certain characteristics of the transmission of electrical currents, which were to lead to practical difficulties later, were not even suspected. Morse's achievement was by no means an accident, but he was dealing, in the land telegraph, with particularly simple electric phenomena. This became apparent, later, when the submarine cable was invented.

The first submarine cable was laid, between Dover and Calais, in 1850. It was certainly not ideal, judged by modern standards, but it was sufficiently successful to inspire the grandiose project of laying



INVENTOR OF THE MORSE CODE

His experiments with electricity led Samuel Finley Breese Morse (1791-1872), the American artist and scientist, to invent a system of communication by electric telegraph. The code he introduced perpetuates his name.



EARLY ELECTRIC TELEGRAPH

Charles Wheatstone (1802-75), professor of experimental physics at King's College, London, promoted, with W F Cook, the progress of telegraphy in England. This is the five-needle telegraph which they patented in 1837.

Science Museum, South Kensington

a cable across the Atlantic. The history of this enterprise is one of the most romantic in the history of invention. Again and again did the pioneers of this great undertaking suffer defeat. Indeed, had it not been for the imagination and public spirit of the American financier, Cyrus Field, they would have had to retire from the contest. After many disappointments and a huge expenditure of money, material and labour, the satisfactory and permanent communication of England with America was achieved in 1866. To the success of this great invention there contributed, as is usual, very many small inventions. The manufacture, winding, storing and paying out of so great a length of cable required special apparatus of various kinds. The ingenuity of many practical men and small inventors was fully requisitioned for the service of the great cable. But one essential contribution to the success of the whole enterprise was that of the mathematician—in this case, Lord Kelvin.

The importance of this fact for us is that it is characteristic of the nineteenth century advances in communication.

Those advances were achieved only by a stricter association between science and industry than had ever occurred before. An interesting aspect of this association is that the science involved was, apparently, the most remote from practical affairs of all the sciences—the science, namely, of mathematical physics. Kelvin's services were invoked because it was found that the electric current in a long submarine cable seemed to behave quite differently from a current in an ordinary land wire. Kelvin, to begin with, knew no more of the reason for this state of affairs than did anybody else. But, with the instinct of genius, the idea occurred to him that the diffusion of electricity through a submarine cable was analogous to a certain problem in the diffusion of heat through a conductor. This problem had already been worked out by the great French mathematician, Fourier. All that Kelvin had to do was to interchange, in his mind, certain characteristics of heat conductors for corresponding characteristics



A GREAT MATHEMATICIAN

The mathematical genius of Lord Kelvin (1824–1907), whose name is borne by many valuable inventions, played an important part in the laying of the first Atlantic cable. He was thereafter consulted on many similar enterprises.

Photo, Russell



AN EVENTFUL MOMENT IN THE HISTORY OF THE ATLANTIC CABLE

After a series of failures to establish permanent connexion between the Old and New Worlds by means of a cable across the Atlantic, success was finally achieved in 1866. In the same year the cable laid by the Great Eastern in 1865, which broke two thirds of the way across, was picked up and completed. A painting by Robert Dudley represents the recovery of the lost cable.

Courtesy of Sir Daniel F. Gooch, Bart.

of electrical conductors. Once this was done, the form of the two problems was the same. He could then use the solution given by Fourier and interpret it in electrical terms.

The moral of this story is obvious, and it is one that subsequent progress in the nineteenth century was to confirm over and over again. Fourier's researches were undertaken for their mathematical interest. It did not seem that they would ever have any practical applications. His book on *The Theory of Heat* was not designed for heat engineers. It was intended for mathematicians, and by them it was described as a 'mathematical poem'—as beautiful and as useless as a poem. Yet it has turned out to be of the first importance to electrical engineers, of whom Fourier never dreamt. Telephone engineers to-day, besides telegraph engineers, would find it impossible to design their circuits were it not for a purely mathematical discovery called Fourier's Theorem, a discovery which was made without either the hope or the expectation that it would ever prove useful. Indeed, as we shall see still more clearly when we come to consider wireless



MICHAEL FARADAY

Great service was done to the foundation of electrical science by the investigations of Michael Faraday (1791–1867), the brilliant experimenter whose discoveries include magneto-electrical induction, whence proceeded the modern dynamo.

National Portrait Gallery, London



JEAN BAPTISTE FOURIER

Experiments on the theory of heat early absorbed the attention of the great French scientist, Jean Baptiste Fourier (1768–1830), famed for his mathematical series. His striking researches are embodied in his *Théorie analytique de la chaleur*.

Engraving by F. Boilly

telegraphy, the history of the communication inventions of the nineteenth century may be described as the discovery of uses for mental achievements that everybody considered useless.

In order to see the advances in communication during the nineteenth century as one connected whole, we must begin with Michael Faraday's discovery of electro-magnetic induction in 1831. This is, from the purely scientific point of view, the central scientific discovery of the century. The biological theory of evolution is usually regarded as the century's outstanding scientific achievement, but it is very questionable whether even that theory will affect our views of the universe as profoundly as the scientific outlook that Faraday's discovery has made possible; for Clerk-Maxwell derives from Faraday, and Einstein from Clerk-Maxwell. However that may be, there is no question about the greater practical importance of Faraday's discovery.

He discovered that if the electric current in a wire is varying in strength, it can create a current in a neighbouring,

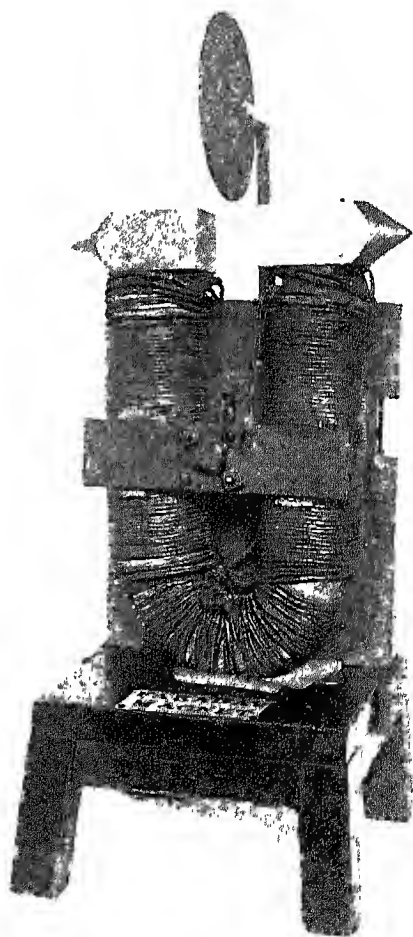
separate wire. The current in the second wire is strongest when the current in the first wire is being made or broken, for then the variation of current in the first wire is greatest. On this one fact rest practically all the applications of electricity to industry. The dynamo, for instance, is nothing but an embodiment of this principle. Scientifically

Prime importance of Faraday's discovery considered, the phenomenon of electro-magnetic induction is the intimate link between the phenomena of electricity and those of magnetism. For it can be shown that an electric current is surrounded by a magnetic field, and that it is the increase and decrease of this field that creates the 'induced' current in the second wire. If a wire be made to move across a magnetic field a current is created in the wire. This is the simple principle employed in an electric generator, where a coil of wire is made to revolve between the pole pieces of a magnet. But before Faraday's discovery could be fully utilised its mathematical laws had to be investigated.

Now Faraday was not a technical mathematician. His way of thinking shows very great mathematical insight, but he had had no technical mathematical training. For this reason, although his discoveries were welcomed by the scientific world, his theories about them were considered quite unintelligible. Highly trained mathematicians, used to the very precise vocabulary of their own science, stared helplessly at Faraday's descriptions of 'lines of force' and 'axes of power.' Faraday could not translate these conceptions into the conventional language of science, and many mathematicians, after fruitless efforts, found themselves quite unable to understand him.

Besides this difficulty, however, there was a deeper reason for their lack of comprehension. Nowadays, everybody with a wireless set can talk glibly about electro-magnetic waves in the aether, but in the early nineteenth century nobody referred electric occurrences to outer space at all. Electricity was vaguely thought of as some kind of fluid which resided on the surface of bodies or else flowed along conducting wires. The fact

that two electrified bodies could act upon one another at a distance was well known, but this action was regarded as immediate and inexplicable. It was inexplicable in the same sense as gravitation was inexplicable. The mutual gravitation of bodies had to be accepted as an ultimate fact about matter; matter simply happened to be that kind of thing. Similarly, the attraction or repulsion of electrified bodies was regarded as an ultimate fact. It was further supposed that electrical attraction, like gravitation, took place instantaneously. An electrified body was



THE EARLIEST DYNAMO

One practical demonstration of Faraday's theories was the electro-magnet which he constructed in 1831. When the copper disk was rotated a current was generated in it and the apparatus acted as a rudimentary dynamo.

Model in Science Museum of original in the Royal Institution

supposed to act on another at a distance without any time whatever being required for the transmission of this action.

It is not surprising that, with such ideas current, no particular importance was attached to the space separating electrified bodies. Whatever went on in that space happened instantaneously. Attention was directed wholly to the electrified bodies and away from the intervening space. We can see that the mathematical

mind, in this instance, actually had a bad effect on science. It is the defect of that

mind that it is too easily satisfied with purely formal explanations, provided they are of a kind that enables results to be correctly calculated. The aether was, at that time, a perfectly well known concept. It had been invented to explain the phenomena of light—in particular, the fact that light takes time to travel. It was invented to answer the question: 'If light takes eight minutes to reach the earth from the sun, where is it after it has left the sun and before it has reached the earth?' It could be shown that light did not consist of little pellets shot out by the sun. It could only be a wave motion in some universal medium. But although scientific men were quite familiar with the aether, they made no attempt to apply it to electrical phenomena.

Faraday's whole conception of electric phenomena was radically different. In his mind's eye he saw the electrical influence spreading out in all directions from the conductor in straight or curved lines—his 'lines of force.' These lines repelled one another and also other lines coming from a similarly charged body. They reached across space in huge curves to terminate on some other body. Along these lines existed a state of tension. They were trying to contract, as stretched elastic tries to contract. Hence the 'attraction' between an electrified body and some other body. The whole field of operations, in Faraday's view, existed in the intervening space between electrified bodies. If his view was correct the interesting and vital part of an electric current was to be found outside the wire, and not inside it, or on its surface. This

notion seemed to his contemporaries extremely paradoxical. But it was this inspiration of Faraday's, as we now know, that made wireless telegraphy and telephony possible.

Faraday's actual discoveries were speedily utilised but, as we have seen, his theories were neglected. It required a very rare type of genius to see the inner meaning of Faraday's remarks, and to give this meaning precise mathematical expression. The genius appeared in the person of James Clerk-Maxwell, to whom the whole of the great and expanding world of wireless is primarily due. Other researches of Clerk-Maxwell would have to be discussed in any account of the pure science of the nineteenth century, but here our attention must be confined to his electrical researches. He agreed with Faraday that the space around any electrified or magnetised body was the scene of stresses and strains in the aether. Variations in the electrification or magnetisation of a body were attended by variations in the electric and magnetic forces in the surrounding space.

Clerk-Maxwell gave these connexions precise mathematical expression, and he made the astonishing discovery, on examining his equations, of Clerk-Maxwell that these variations of electro-magnetic force were propagated through the surrounding space, not instantaneously, but with a certain definite velocity. He was able to calculate this velocity, and reached the extraordinary interesting result that it was equal to the velocity of light.

The scientific importance of this discovery is overwhelming. It united the two separate sciences of electro-magnetism and optics. The phenomena of light became, in fact, a branch of electro-magnetism. Light is an electro-magnetic phenomenon; light waves are merely short electro-magnetic waves. This discovery was published in 1864. But Clerk-Maxwell's ideas were too original to be appreciated immediately. Scientific men, in order to follow him, had to adopt an outlook entirely different from that to which they were accustomed. Most of them were unable to make the effort. Even

Kelvin, to the end of his long life, never accepted Clerk-Maxwell's theory.

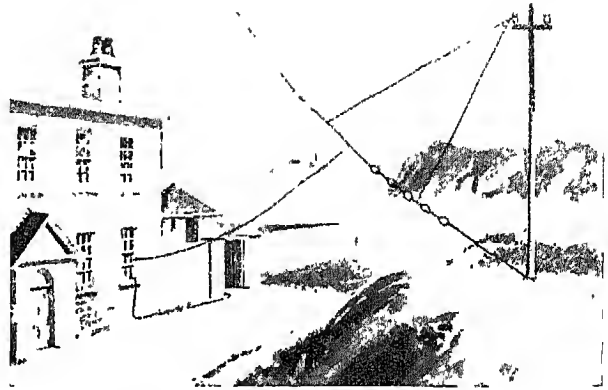
Amongst those who did was Heinrich Hertz, the brilliant young German physicist. But he saw that, if the theory was to be accepted, it must be experimentally confirmed. Clerk-Maxwell had mathematically prophesied the existence of electro-magnetic waves travelling through the aether with the velocity of light. How were they to be produced experimentally? This is the problem Hertz set himself, and which he magnificently solved. It was in 1888 that he artificially produced electro-magnetic waves in his laboratory, and, by various experiments, such as reflecting and refracting them, showed their analogy to light waves. Thus a great scientific theory, a product of the rarest insight, was proved beyond all doubt. Hertz was probably quite satisfied at having made a contribution to pure knowledge; but it very soon dawned on more than one mind that in this discovery were the seeds of a mighty revolution in our means of communication.

As early as 1894, Sir Oliver Lodge made successful experiments in transmitting messages by wireless waves.

The advent of Wireless With the advent of Marconi the practical side of the discovery progressed rapidly.

In June, 1897, Marconi sent a message over a distance of nine miles. A year later he was able to send a wireless message across the English Channel, and in 1901 he successfully telegraphed over a distance of three thousand miles. We may say, therefore, that by the end of the nineteenth century the new means of communication was a practical success.

A full account of the practical difficulties that had been overcome and which yet remained to be overcome would be



WIRELESS CONQUERS THE ATLANTIC

On December 12, 1901, the first wireless message was received on this lonely aerial at Signal Hill, Newfoundland, from Poldhu, Cornwall, thus eclipsing all Marconi's previous experiments in long-distance transmission, and announcing a revolutionary change in the means of trans-Atlantic communication.

Courtesy of Marconi's Wireless Telegraph Co. Ltd.

irrelevant to our present purpose. The important aspect of the discovery, from our point of view, is that it was the direct outcome of the most abstract scientific speculations. It is natural for the outside world to pay more attention to the man who makes a scientific discovery a practical success than to the man who makes the discovery. That is why Marconi's name is a household word while Clerk-Maxwell's name is known by comparatively few. Yet there can be no question as to the relative importance of the two men.

The point is important, because the governing classes have hitherto shared the ignorance of the ordinary public. Nothing is stranger than that the whole complexion of civilization was changed by science during the nineteenth century, and yet that this dominant

power received no state support. The burden of the public speeches of the scientific men of that time is their complaint at the lack of government recognition and support. Clerk-Maxwell, as it happened, was a Scottish landowner, and so was free to devote all his time to his scientific speculations. Had he been less fortunately placed we should probably still be without wireless telegraphy.

In reviewing the history of telegraphy we see that pure theory has played the dominant part. The further developments of wireless telegraphy, and telephony also, are connected with the further developments of theory. It was in 1879 that Sir William Crookes published his researches on the electric discharges in vacuum tubes, researches which were to lead to the electron theory and to the discovery of X-rays. Certain modern processes in wireless depend directly on the theory of electrons, which again is an outcome purely of the passion for scientific knowledge. But although the consequences of the electron theory, should it ever lead to the artificial disruption of the atom, will dwarf all the scientific applications of



SIR WILLIAM CROOKES

The researches of Sir William Crookes (1832-1919), inventor of the Crookes tube, form an important progressive step towards the electronic theory developed from them by Sir J. J. Thomson (see page 5004). Crookes was knighted in 1897.

Photo, Elliott & Fry



A MASTER SCIENTIST

Albert Einstein, a German Jew born at Ulm in 1879, owed his early scientific reputation to the special or restricted theory of relativity which he formulated in 1905. For the implications of his later general theory see Chapter 187

Photo, L.N.A.

the past, these applications are not yet practical, and do not concern us.

Another great scientific discovery which falls within our period, Einstein's Restricted Principle of Relativity, published in 1905, is even more innocent of practical results. It would be unwise to say that it always will be, for even the history of telegraphy is enough to show us that we cannot regard any scientific discovery as practically useless merely because it is highly abstract.

Amongst scientific discoveries whose practical application became immediately obvious we must rank X-rays, discovered by Röntgen in 1895. The use of their marvellous penetrative properties was immediately realized. It was through these properties that they were discovered, by what we might term an accident. They were not, like Clerk-Maxwell's electromagnetic waves, foreseen theoretically. Indeed, for a long time their nature was not understood. We know now that they enter into Clerk-Maxwell's general scheme; they are, in fact, extremely short electromagnetic waves and it is to their shortness that their penetrative properties are due.

Their use in medicine and surgery is well known and this is, indeed, the most obvious of their applications. A less known use of them, at present of small practical but of great scientific interest, is their application to the analysis of crystals. This branch of research is of growing practical importance because of the light it throws on the intimate constitution of certain substances, but the origin of this analysis is worth describing as one of the prettiest ideas in modern science.

The problem to be solved was the apparently quite useless problem of determining the exact length of

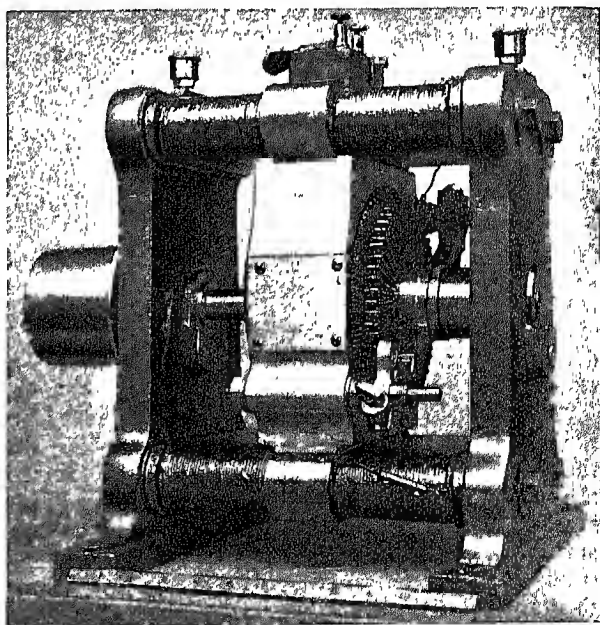
X-Rays and Crystal analysis X-rays. Now the length of ordinary light waves is usually determined by what is called a diffraction grating, a sheet of glass on which lines are ruled very close together. It is essential that the distance between adjacent lines should be of the same order of magnitude as the length of the waves to be measured. That such instruments can be constructed for visible light is sufficiently marvellous. Gratings

having more than 1,700 lines to the millimetre have been made. But it was suspected that X-rays were one or two thousand times shorter than light waves. It was obviously hopeless to rule a grating to measure them. Nobody could hope to rule a million lines to a millimetre.

The brilliant idea occurred to Professor von Laue that nature had already provided such diffraction gratings. It was known that the atoms in a crystal are arranged in an orderly manner, and von Laue saw that a crystal, regarded as made up of equally spaced layers of atoms, was exactly the diffraction grating required. The distance between the layers of atoms is just the distance required to diffract the X-rays. This idea proved perfectly successful in practice, and it was found that the method could be, as it were, inverted. Not only could the

crystals be used to analyse the X-rays, but the X-rays could be used to analyse the crystals. A good deal of work has been done along this line, and the intimate structure of many crystalline bodies is now understood. The further extension of this branch of knowledge will enable us to control the formation of many substances, with results of which the artificial manufacture of diamonds would be one of the most insignificant.

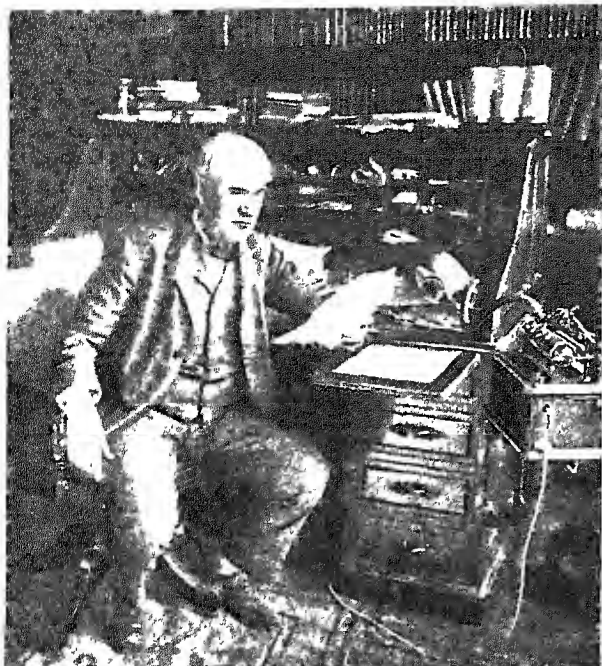
We have spoken so far of those inventions which were the outcome of the theoretical developments of Faraday's discovery of electro-magnetic induction. That discovery, however, was capable of immediate application without waiting for the long train of theoretical consequences worked out by Clerk-Maxwell. In the dynamo, as we have said, the principle is applied directly. Dynamo designers have, of course, their own technical problems, but the only important discovery in pure science that they utilise is Faraday's. And with the invention of the dynamo a whole host of industries came into being. Its



FIRST PRACTICAL DYNAMO

The progress of electric lighting by arc lamps was greatly accelerated by the introduction of the dynamo of Zenobe Theophile Gramme, a Belgian electrician, in 1870. This photograph shows one of his earlier models, an advance incorporating the ring armature invented by Pacinotti in 1860.

Science Museum, South Kensington



EDISON AND ONE OF HIS INVENTIONS

Almost every branch of science has been affected by the prolific inventive genius of the American Thomas Alva Edison, here seen seated in his study before the phonograph that he devised. The introduction of vast improvements on former methods of telegraphy was due to his investigations.

Photo, Underwood & Underwood

importance in transport is obvious. Apart from electrically propelled vehicles the whole motoring industry, since dynamo or magneto is an essential part of any motor-car, rests upon Faraday's discovery. And there are other industries which, although not directly dependent on the dynamo, would not exist in their present form without it. A very good example of this is offered by electric lighting.

The first form of electric lighting was by the use of the arc lamp. It was in 1801 that Sir Humphry Davy first observed that if an electric current be made to flow through two pieces of carbon, whose ends are in contact, an electric arc can be created by slightly separating the ends. In this experiment, of course, the electric current was generated chemically, by 'cells.' A large arc required a very large number of cells. In a repetition of this experiment in 1808, Sir Humphry Davy used a battery of no fewer than 2,000 cells. This system of lighting, although interest-

ing scientifically, was not a commercial proposition. It could not become one until means of producing suitable carbons for arc lamps were discovered, and, more important still, until electric current could be generated cheaply.

Even when the first problem was solved there was no large demand for carbons until after the Gramme dynamo was invented in 1870. This was the first really practical and economical dynamo. With its invention electric lighting by arc lamps made rapid progress, and its application to commercial purposes is therefore dependent on the dynamo. Besides Faraday's theories, then, the great factor in the development of electric lighting was Davy's discovery of the arc. Any other scientific principles involved are of comparatively minor importance. Photometric investigations, for instance, as to how the light from an arc is distributed in surrounding space are of im-

portance to designers, but are not essential to the production of electric light.

The invention of incandescent electric lamps was equally dependent on the dynamo and is, even more than the arc, a record of trial and error. Experiments began as early as 1841, when De Moleyns constructed a very imperfect lamp. They were continued by King and Starr in 1845, by Staite in 1848 and by Watson in 1853. None of these attempts was successful, partly because an efficient dynamo had not yet been invented. Even when the dynamo was invented the construction of a satisfactory filament continued to present great difficulties. Edison, in 1878, employed a filament composed of platinum covered with carbon for trial purposes, but abandoned it. Many other attempts were made along these lines. Metals such as platinum and iridium were mixed with refractory oxides such as magnesia and zirconia, but in no case was the result satisfactory. Finally, it

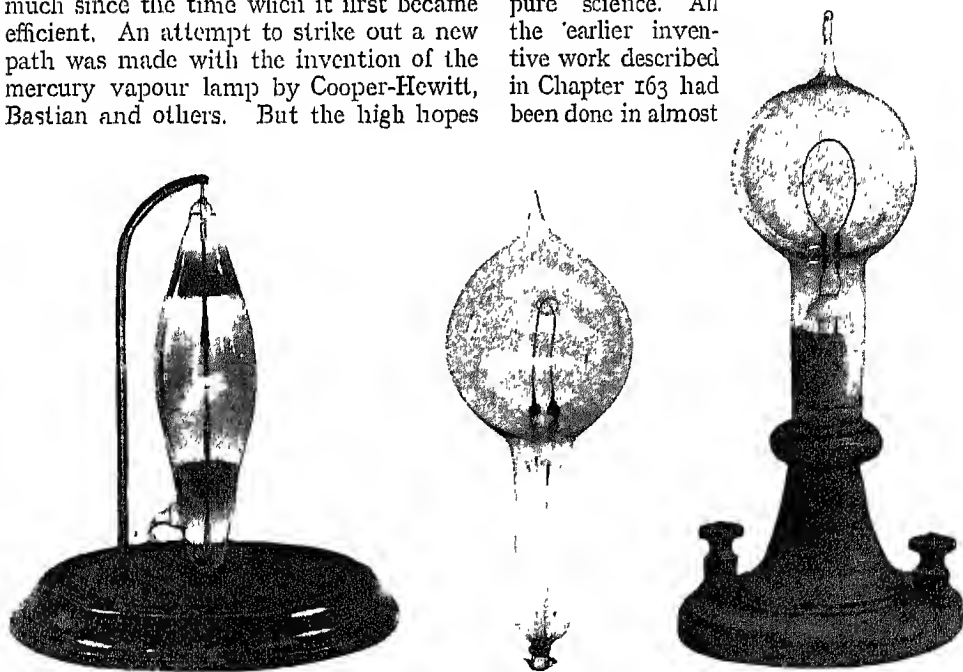
began to dawn upon a large number of people, of whom Edison was one, that the incandescent electric lamp must fulfil certain conditions. These were as follows : The filament must be of carbon ; it must be in a vacuum ; the containing vessel must be of glass ; the filament must be led in by platinum wires hermetically sealed in the glass. With the construction of a lamp fulfilling all these conditions the problem was solved.

Subsequent researches were concerned chiefly with the nature of the filament. In 1897, Nernst produced a lamp where the filament was of magnesia. In the latter part of the nineteenth century and the first decade of the twentieth several metallic filament lamps were invented. Osmium, tantalum, tungsten were the chief materials used. Welsbach suggested the osmium lamp, and the tantalum lamp was produced by von Bolton in 1904. These variations are interesting, but, in essentials, electric lighting has not changed much since the time when it first became efficient. An attempt to strike out a new path was made with the invention of the mercury vapour lamp by Cooper-Hewitt, Bastian and others. But the high hopes

at one time entertained of it have not been fulfilled. It is certainly a very economical form of lighting, but the fact that it does not reveal objects in their natural colours weighs against it.

The manifold advantages of electric lighting are obvious, and it must be regarded as one of the great inventions of the nineteenth century. But it is by no means an ideal solution of the problem of providing artificial light. In all the systems of lighting hitherto invented a very considerable proportion of the total energy consumed is radiated as heat. This heat is useless, or even worse, and greatly diminishes the efficiency of the system. In this respect nature is far ahead of man. The glow-worm, which gives a cold light, is much nearer the ideal illuminant than is the electric arc or metallic filament lamp.

As we have said, the other great branch of our subject, the invention of means of transport, owes comparatively little to the development of pure science. All the earlier inventive work described in Chapter 163 had been done in almost



EARLY TYPES OF INCANDESCENT ELECTRIC LAMP

About 1841 experiments were begun in the construction of the incandescent electric lamp, now an article of almost universal and indispensable household use. Its creation was made possible by the invention of the dynamo and of the carbon filament. These examples are, left, a Swan experimental carbon pencil lamp, 1878-9 ; centre, a Swan early commercial type, c. 1880, and, right, an early experimental Edison lamp, 1880. The last two have a filament produced by the carbonisation of a vegetable substance.

Science Museum, South Kensington

complete ignorance of the true science of heat. The various improvements that had been thought of from the time of Watt to that of Stephenson were suggested almost wholly by empirical considerations. Watt, it is true, acknowledged his indebtedness to Joseph Black's doctrine of latent heat, but that doctrine, by itself, could have had little influence on the design of the steam engine.

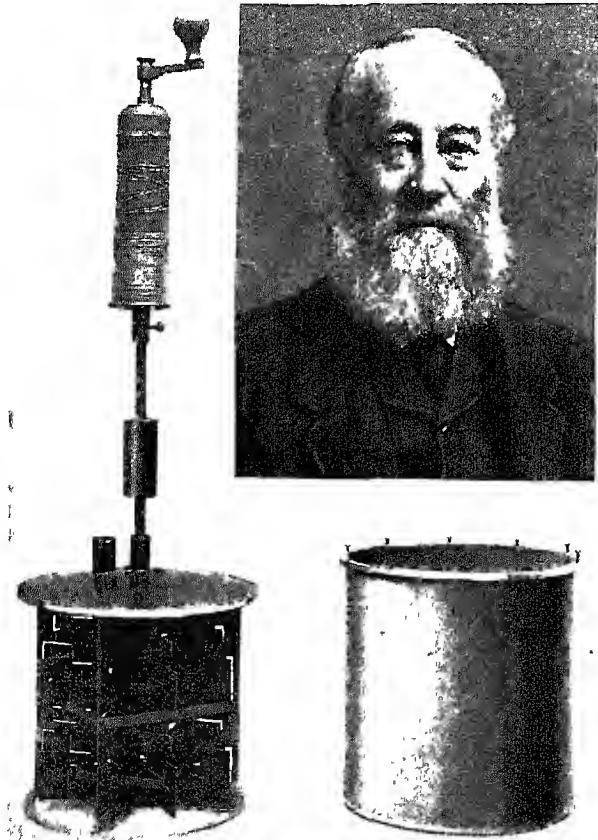
The relation between heat and work, the essential part of the science of heat from the point of view of the steam-engine designer, was quite unknown in the time of Watt. It was only long afterwards that Sadi Carnot showed that heat only does work by being let down, as it were, from

a higher to a lower temperature. This discovery was remarkable for its time, but it was incomplete. The actual quantitative relations between heat and work were still unknown. Those relations were discovered by Joule, in 1843, as part of the great scientific generalisation called the 'conservation of energy.' A quantitative basis being provided, the science could develop.

From 1849 onwards the branch of science known as thermodynamics was developed by Clausius, Rankine and Kelvin. The practical advantages for the design of steam engines were considerable, but they were not as great as might have been expected. Thermodynamics is an exact

science, but it chiefly contemplates relatively simple processes and idealised substances. The phenomena presented by a steam engine cannot be so satisfactorily brought within the abstractions of science as can, for instance, the phenomena presented by a dynamo. It is for this reason that Rankine's applications of the new science to steam engines were faulty. A complete scientific description of the steam engine cannot even yet be given. Our knowledge of certain actual processes is still largely empirical.

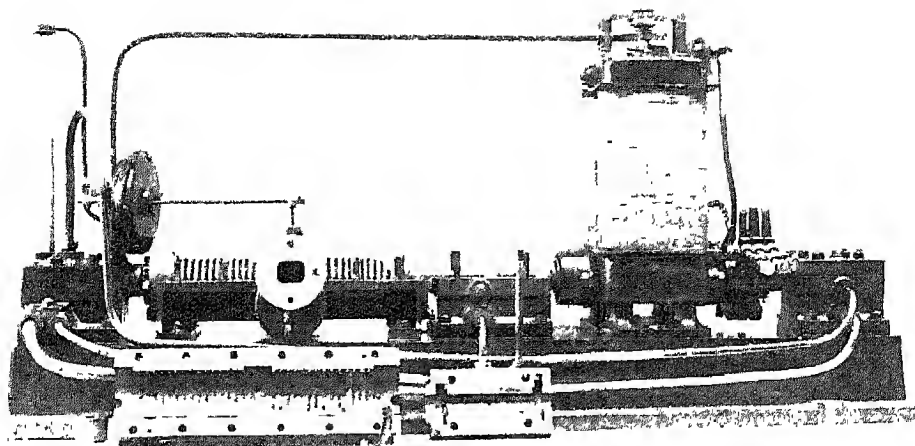
A great practical advance resulted from the Hon. C. A. Parsons' invention of the turbine. In this machine jets of steam or water are made to impinge on rotating blades, or, in another form of the machine, it is the reaction exerted by the issuing jets that causes rotation. The compound steam turbine was introduced by Parsons in 1884. It was fitted with a condenser in 1891, and then began to be used in electric supply stations. It has achieved its greatest triumphs in transport in its application to the steamboat. Two of the largest ships in the world, the Lusitania and the Mauretania,



JAMES PRESCOTT JOULE AND HIS CALORIMETER

For more than forty years James Prescott Joule (1818-89) pursued his experiments with electricity and magnetism. He is chiefly remembered for his discovery of the 'mechanical equivalent of heat.' This calorimeter is the one originally employed by Joule in 1849 during the course of the investigation.

Above, painting by Hon. John Collier, Royal Society; below, Science Museum South Kensington



INVENTION THAT MARKS AN IMPORTANT ADVANCE IN STEAM ENGINEERING

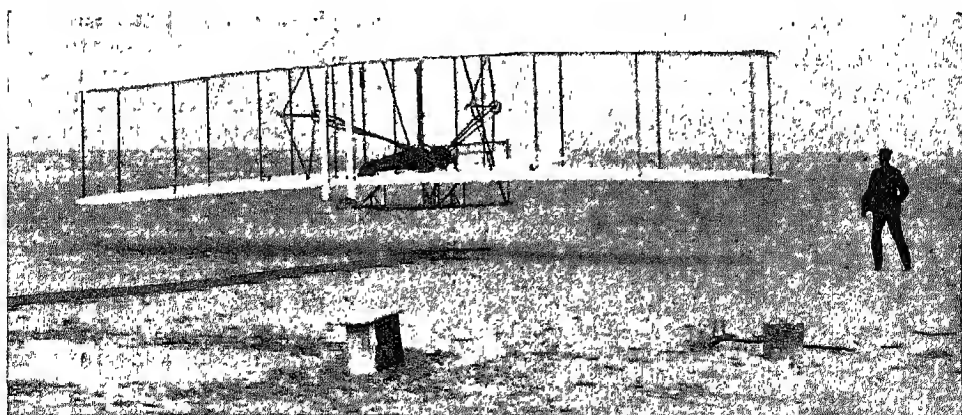
Sir Charles Algernon Parsons, born in 1854, founded the Newcastle engineering firm of C. A. Parsons & Co. In 1884 he first introduced his parallel-flow steam turbine, the original model of which is shown in this photograph coupled to a dynamo (right). In 1891 it was fitted with a condenser, and in 1897 an experiment in its utility for marine propulsion carried out with S.S. *Turbinia* made clear its advantages. Further experiments with larger and faster ships produced successful results.

Science Museum, South Kensington, by permission of Sir Charles Parsons

were provided with turbine engines developing as much as 70,000 horse-power.

The main transport invention of this period is unquestionably the steam engine. A great auxiliary is the motor-car. But the discovery of the aeroplane, both on account of its dramatic interest and of its future possibilities, is probably of even greater importance. Here again we have an invention which is almost wholly empirical. We may fairly date the history

of the aeroplane from 1904, when the Wright brothers made two flights of three miles each round a circular course. This triumph was the result of long and laborious experiments. It was most emphatically the outcome of trial-and-error methods. There is, of course, a science of aeroplanes. Many good mathematicians are working at the problems of aerodynamics, but it is safe to say that even now the development of aeroplaning



THE FIRST FLIGHT OF THE FIRST MAN-CARRYING AEROPLANE

The gliding experiments laboriously made by two American brothers, Orville and Wilbur Wright, at Kitty Hawk, North Carolina, led to their discovery of a solution to the problems of aeroplane control. They enjoy the distinction of being the first constructors of a practical power-driven flying machine to carry a man from the ground. The Wright aeroplane first flew on December 17, 1903, and the original machine was presented to the Science Museum by Wilbur Wright in 1928.

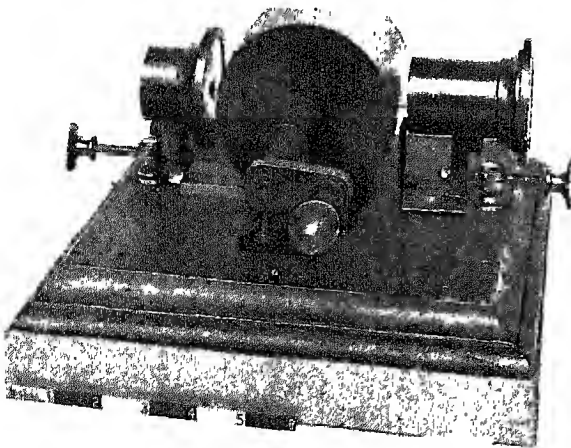
Science Museum, South Kensington

owes more to step by step experiments than to pure science.

We cannot conclude our survey without a reference to the gramophone. Edison's phonograph was invented in 1887, and exhibited at Paris in 1889. Since then, as all the world knows, the gramophone has been greatly improved. It can be regarded as a means of communication, not in the ordinary sense, but as books are a means of communication. Its nearest analogy is the invention of the art of printing. Just as that invention brought the thoughts of great writers into the home, making the student no longer dependent on infrequent perusals of rare copies, so the gramophone makes possible a knowledge of that other great medium of expression, music, which is not confined to what may be obtained by infrequent attendances at rare performances. The invention of the gramophone must, on the whole, be ranked amongst the empirical inventions. The science of sound has, unfortunately, always proved itself singularly useless in practical applications. Even a bell presents almost insuperable theoretical difficulties, and improvements effected in the gramophone have been chiefly the result of trial and error.

We have seen that our survey falls naturally into two divisions: those inventions that are the outcome chiefly of pure theory, and those that are the outcome chiefly of empirical observation. To the first division belongs, on the whole, the development of our modern means of communication, and to the second division belongs principally the development of means of transport. So far as the influence of science on invention is concerned, we have been occupied almost wholly with the science of mathematical physics. It is the mathematician who has played the leading rôle in making our present means of communication possible. Even in the problems of transport his services have been by no means negligible, although here the chief honour must be awarded to the so-called 'practical' man. But though it is true that the services of physics to industry have been of enormous importance, we should have to mention other sciences in any extended survey.

There are hundreds of processes, for instance, which depend upon chemistry, a science that also underwent great developments during the nineteenth century. The biological sciences, on the other hand, except by helping us to conserve forests and sea fisheries, have had very little influence on practical life. We cannot suppose that this will always be so. It is no part of our present task to prophesy future inventions; but nobody who is familiar with the effect of the ductless glands in altering personality, or with the experiments in rejuvenation, can help wondering whether the great biological inventions of the future will not prove to be the most important of all. In the meantime, we may say that our modern world differs from the old chiefly because of the insight and reasoning of a few mathematicians, and the exhaustless ingenuity and patience of a vast host of practical men.



PROTOTYPE OF THE MODERN GRAMOPHONE

Although sound vibrations had been graphically recorded on moving surfaces before 1877, no successful method of reproducing them was available until, in January of that year, Edison took out a patent for his tin-foil phonograph. He later effected many improvements upon this early model.

Science Museum, South Kensington

THE U.S.A. ON THE EVE OF THE GREAT WAR

The Country and the President under whom it had to face the greatest crisis of its foreign Policy

By ROBERT McELROY Ph.D. LL.D.

Harmsworth Professor of American History, Oxford; Sometime Edwards Professor of American History, Princeton; Author of *Grover Cleveland, the Man and the Statesman*, etc.

EVERY presidential election in the United States is a critical election, for the president wields power that the most ambitious monarch may envy but in the twentieth century dares not emulate. In domestic affairs his voice is potent, for he has the ear of the people as no one else has; he can command the ear of the people's representatives as no one else can; and, when their decision runs counter to his desires or his convictions regarding legislation, he can exercise the veto which no British sovereign has ventured to exercise since the days of Queen Anne. In theory, the initiation of legislation belongs to Congress, financial bills originating only in the House of Representatives; but in practice the hand of the executive is often as strong in the initiation as in the execution of laws, and a skilful president may easily break down the middle wall of partition that separates the executive from the legislative branch of the government, and initiate even financial measures.

But while of potential authority in domestic affairs, especially when his party happens to control both branches of the legislature, in foreign affairs his is the controlling voice, until his agreements with foreign governments are ready to be submitted to the Senate for the 'advice and consent' which alone can make them binding agreements. The Constitution declares simply: 'He shall have power, by and with the advice and consent of the Senate, to make treaties, provided two thirds of the Senate present concur' (Art. 2, Sect. 2); and the debates in the Federal Convention which 'formulated' the Constitution—it was 'formed' in

essence by a process of evolution which covers centuries of Anglo-Saxon history—make it quite clear that the president was expected to avail himself of the advice of the Senate during the period of negotiation, and to ask its consent not for a new proposition, but for one every stage of which had been followed by the Senate.

In 1782, under the Articles of Confederation, the newly appointed secretary of the Department of Foreign Affairs was required to submit in advance to Congress **The Department of Foreign Affairs** all letters to ministers of foreign powers relating to treaties, all letters of credence and plans of treaties, and it was under this clumsy machinery that the treaty of peace of 1783 was negotiated; and in this, as in most respects, established custom at first determined the procedure of the new and more powerful executive under the new constitution of 1789. Thus, during the earlier years of President Washington's administration, when methods were taking shape, it was customary for the president to appear in the Senate, with such of his cabinet advisers as he deemed necessary, and explain the general plans which he intended to follow in pending negotiations with foreign governments.

This practice, if continued, might easily have developed that close connexion between the executive and the legislative branches of the government which gives coherence to the British system of a responsible cabinet, a system which has been copied, and with varying degrees of success, in so many parliamentary governments of later development. But President Washington on one memorable



PRESIDENT WILSON

Thomas Woodrow Wilson was elected president of the United States in 1912. At first an advocate of peace, he finally countenanced America's entry into the Great War. This photograph was taken during the electoral campaign.

Photo, E.N.A.

occasion experienced opposition from his Senate that was not to his liking, and the practice of personally seeking the Senate's advice in advance of negotiation was soon abandoned. Until the accession of President Thomas Jefferson in 1801, however, presidents continued the practice of delivering their messages to Congress in person; but, long before the abandonment of this practice by President Jefferson, it became the custom for the executive to conduct treaty negotiations with foreign governments without asking the guidance of the Senate, and to present for their 'advice and consent' only the finished product, to be debated, accepted, rejected or amended according to the Senate's pleasure, and at times according to its temper.

Such was the long established practice when the presidential campaign of 1912 opened, to usher in a president destined to face greater international complications than any other in history, and to fail

of the consent of the Senate in matters of world moment largely because he failed to seek their advice while planning his methods of settlement. And yet, as an academic writer, this leader, Woodrow Wilson, had called attention to the wise course, in a series of lectures at Columbia University in 1908, using the words:

He [the President] may . . . establish intimate relations of confidence with the Senate on his own initiative, not carrying his plans to completion and then laying them in final form before the Senate to be accepted or rejected, but keeping himself in communication with the leaders of the Senate while his plans are in course . . . in order that there may be veritable counsel, and a real accommodation of view instead of a final challenge and contest.

For over a century and a decade before 1914 successive presidents had followed the custom of conducting foreign negotiations without formal consultation with the Senate, and of sending their messages to Congress by messenger, there to be read for them by officials of the Executive control of two houses. As the Treaty negotiations two major parties, the Republican and the Democratic, manoeuvred for advantage, pending the presidential nominations of 1912, none contemplated the future that awaited the successful presidential aspirant; none could foresee the restoration of the long abandoned practice of delivering presidential messages in person; and none dreamed of the complications that would follow from the practice of complete executive control of treaty negotiations. Indeed, even the most far-sighted of American politicians reckoned little of foreign affairs. All had their minds fixed almost exclusively upon domestic problems, although Mexico was furnishing more than normal food for thought regarding a somewhat wider horizon, and the problems of Panamá were obtrusively forcing themselves into the foreground.

So far as Europe was concerned, its pressing problems seemed to Americans little related to the issues of their pending problem of selecting a president. His major tasks, as they firmly believed, were to be concerned with disputes between capital and labour; monetary reform;

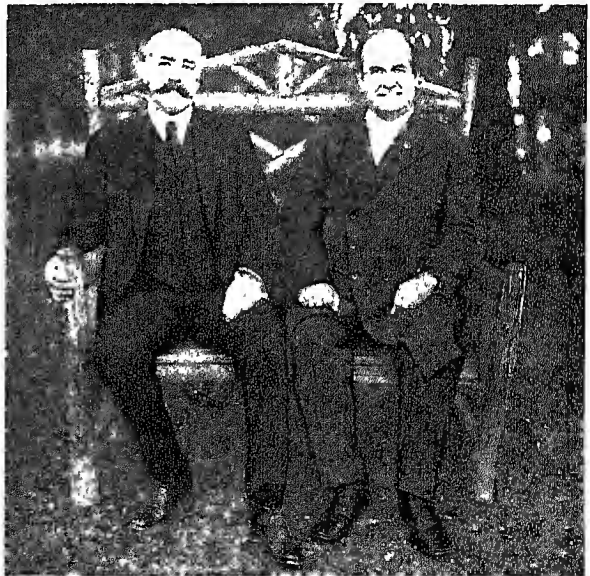
ballot reform; the enlargement of the franchise to include women; the popular election of United States senators; preferential primaries (a device for enabling the voters of the several parties to express their preference respecting the nomination of party candidates); the initiative (to give to the ordinary voter a means whereby he may propose laws without the intermediary agency of his regular representative); the referendum (to enable him to express his personal opinion respecting proposed laws); the recall (to enable him to join with his fellow voters in removing

New problems officials whom they have pending in 1912 ceased to trust); the regulation of transportation, and the control of trusts. To no one did it seem necessary that the candidates should be sounded upon questions that proved to be more vital than all of these combined: military preparedness, and the meaning of 'entangling alliances'; the ideals of Germany as compared with those of Great Britain, France or Italy; the implications of membership in the family of nations; the right of the executive, by virtue of its established right to direct pending negotiations, to make promises or implied promises to foreign governments or associations of foreign governments; the power of the government to carry the nation into a world court or a world League of Nations without amendment to the Constitution.

Yet these last were the questions awaiting the leadership which the presidential election of 1912 was to determine, questions which soon placed the successful candidate in the centre of the largest stage ever occupied by mortal man, and gave him a power which might well have dazed even Napoleon.

When the political waters of America began to be troubled in 1912 by the spirit which always appears towards the end of each administration, both the great parties were

torn by factions, factions born wholly of domestic issues. In each party there existed a faction, how great no man could tell, which believed that America had been sold into bondage; and these, in each party, awaited a heaven-sent Moses to lead them back into liberty. In the Democratic party William Jennings Bryan, a spent comet, still held the public attention, still represented, though in lessened degree, the leadership of the Democratic 'new-eraists,' whose vision of duty lay in the task of breaking the chains which they believed predatory capital to have placed upon their nation. Three defeats for the Presidency had lessened Bryan's personal availability; but they had by no means destroyed his leadership. This leadership, however, was disputed by the latest of the long line of defeated Democratic candidates, a line unbroken since Grover Cleveland's victory of 1892. Judge Alton B. Parker, whom Theodore Roosevelt had beaten in the presidential contest of 1904, was still the centre of Conservative Democracy, a not inconsiderable body of voters with less faith



LEADERS OF DEMOCRATIC FACTIONS

The leadership which William Jennings Bryan (right) maintained over a section of the Democratic party was disputed by Judge Alton Brooks Parker, with whom he is shown in the grounds of the latter's home at Esopus in September, 1912. In 1913 Bryan took office as secretary of state under Wilson, for whose nomination he had been largely responsible.

Photo, E.N.A.



THEODORE ROOSEVELT

Republican President in 1901 and re-elected in 1904. Theodore Roosevelt (1858-1919) fought political corruption at home and upheld prestige abroad. He is seen speaking during his unsuccessful campaign for the Presidency in 1912.

Photo, F.N.A.

than that of the Bryanites in the theory that the nation was in bondage, and therefore with less enthusiasm for the methods proposed by Bryan and his 'progressive' followers for her release.

In view of this division within the party, however, the selection of a candidate was obviously a task involving grave difficulties, especially as a two-thirds vote of the party convention would be necessary to nomination.

The year 1912 found the Republican party even more rent by faction, even more divided between a conservative and a radical wing. The former Republican president, Theodore Roosevelt, dynamic centre of the party, had won the title of militant reformer as a member of the New York legislature, civil service commissioner, police commissioner for New York

City, assistant secretary of War, and pre-eminently as governor of the State of New York at a time when the 'big boss,' Thomas C. Platt, had held the Republican party of the state in the hollow of his hand. During his two years as governor, Roosevelt had fought the 'invisible government' so effectively that his administration marks the beginning of the end of a system that had menaced not only local but national government. The 'big boss' system survives in certain cities, but as a menace to national power it is a scourge that has passed, and no man did more to speed its passing than Theodore Roosevelt.

In 1900 'Boss' Platt had shown an interesting eagerness for the nomination of Governor Roosevelt as Republican candidate for the Vice-Presidency. On February 3 of that year Roosevelt had written this explanation to Senator Lodge: 'I have found out one reason

why Senator Platt wants me nominated for the Vice-Presidency. The big moneyed men with whom he is in close touch, and whose campaign contributions have certainly been no inconsiderable factor in his strength, have been pressing him very strongly to get me put in the Vice-Presidency, so as to get me out of the State.' Reluctantly Roosevelt had consented to the plan, and had been elected vice-president, with William McKinley as president, only to succeed to the Presidency upon McKinley's death, in September, 1901.

As president, Roosevelt had found the movement for unified control of industry and of transportation alarmingly powerful. In 1900 J. Pierpont Morgan had effected the greatest corporation ever organized, the United States Steel Company,



JOHN PIERPONT MORGAN

The United States Steel Corporation was the creation of the American financier John Pierpont Morgan (1837-1913), whose firm, J. P. Morgan & Co. of New York, financed many great enterprises.

Photo, Topical Press Agency

with stocks and bonds aggregating \$1,100,000,000 (about £220,000,000), and with untold power over mines, transportation and subsidiary manufactures. So vast was its power that for several years it dominated the price of steel products. Upon a similar scale had come the consolidation of minor railways into vast systems. E. H. Harriman had secured control of a huge area of transportation extending from Chicago to Portland, San Diego and New Orleans. The Gould System, the Morgan combination, the vast sphere of railway influence dominated by the genius of James J. Hill, culminating in the formation of the Northern Securities Company, which attempted to bring under one directing head the Great Northern, the Northern Pacific and the Chicago, Burlington and Quincy, had clearly heralded the approaching end of railway competition.

At the Northern Securities Company, however, President Roosevelt had aimed a blow that had checked the tendency. In 1904, by a suit under the Sherman



INDUSTRIAL PALACES OF BROADWAY

In this photograph of Broadway, New York City, as viewed from Battery Park, may be seen the giant buildings of the Standard Oil Company (right) and of the International Mercantile Marine (left)—'interests' such as Roosevelt fought.

Photo, L. N. A.



WILLIAM HOWARD TAFT

Born in 1857, William Howard Taft was elected president of the U.S.A. in 1908. His tariff acts of 1910 diminished his popularity, and he was defeated at the presidential election of 1912. He was appointed chief justice in 1921.

Photo, Keystone View Co.

Anti-Trust Law, he had obtained from the Federal Supreme Court an order dissolving it as an illegal combination; and in 1912 the court had divorced the illegal union between the Union Pacific and the Southern Pacific.

By such measures, and by virtue of a genius of personality not approached by any president since Lincoln, Roosevelt, president by reason of President McKinley's death, had stood forth by 1904 as the champion of progressive doctrines; and so complete was his control that his nomination for a second term of the high office to which he had succeeded was unanimous. Elated by success, and unmindful of the latent possibilities of the future, he had declared that he would follow the tradition started by Washington and, considering that he had served two terms as president, retire to private life at the end of his new term.

Roosevelt's progressive activities had continued during the years 1905-1909,

with schemes for corporation control, suits against great trusts suspected of violating the Sherman Anti-Trust Law, arrangements for conserving public interests in minerals, water power, forest areas, schemes for irrigation, pure food laws and laws for the proper protection of labour. At the end of what he considered a second term as president he had planned and effected the election of William H. Taft as his successor, and retired to hunt, explore and study nature in the wilds of Africa.

During his absence President Taft had made clear his sympathy with the Conservative wing of the Republican party; and, when Roosevelt returned in June, 1910, he found his party showing alarming signs of splitting up into two factions, the Progressives and the Conservatives. The insurgent movement had shattered party unity, and the 'lunatic fringe' led by Senator Robert M. La Follette, of Wisconsin, was teaching the public that Roosevelt was no progressive, and that his two terms of service as president had demonstrated the fact. Openly denouncing trusts and combinations, Roosevelt, says La Follette's autobiography, 'made concessions and compromises which tremendously strengthened these special interests.' 'Taft,' he adds, 'co-operated with Cannon and Aldrich in legislation. Roosevelt co-operated with Aldrich and Cannon in legislation. Neither President took issue with the reactionary bosses of the Senate upon any legislation of national importance. Taft's talk was generally in line with his legislative policy. Roosevelt's talk was generally at right angles to his legislative policy.'

There are to-day few Americans who will agree to that statement. On the contrary, public opinion, regardless of party, has accepted rather the view that

Roosevelt was a broad-minded, far-seeing and inherently progressive leader, but one too wise in the wisdom of the ages to accept trite phrases as solutions for great public evils. It is doubtless possible, as

Lincoln declared, to 'fool all of the people some of the time and some of the people all of the time,' but the politicians found it difficult to fool Theodore Roosevelt any of the time.

In January, 1911, a National Progressive Republican League was organized, apparently in the interest of the candidacy of Robert M. La Follette, now leader of the senatorial revolt from the policies of President Taft. Its specified demands were:

1. Election of United States senators by popular vote.

2. Direct primaries for the nomination of elective officials.

3. Preference primaries through which the

people might directly register their choice of candidates for president and vice-president; and the direct election of delegates to national party conventions.

4. Amendments to state constitutions which would establish the initiative, the referendum and the recall.

5. A stringent corrupt practices act.

Roosevelt, soon after his return from Africa, declined an invitation to join this Progressive League, a course which increased the existing suspicion among certain Progressive Republicans that he was not really progressive at heart. News of this refusal was followed by the publication by Colonel Roosevelt of a letter that President Taft had written to him soon after the latter's inauguration, declaring: 'I cannot forget that the power I now exercise was voluntarily transferred from you to me.' The Rooseveltian comment, made at Worcester, Mass., on April 26, 1912, was 'It is a bad trait to bite the



SENATOR LA FOLLETTE

Robert Marion La Follette, governor of Wisconsin from 1901-7, became U.S.A. senator in 1905. He led the progressive faction of the Republican and denounced Roosevelt's 'conservatism.'

Photo, Keystone View Co.

hand that feeds you.' Clearly, on the eve of the National Republican Convention, Roosevelt was out of sympathy with important elements in both sides of his badly divided party. There were of course many Republicans of both wings who wished to see Colonel Roosevelt himself nominated, but even among them there was the memory of the fact that he had served as president for almost two terms, that tradition had fixed the limit of two terms for any president, and that Roosevelt had himself declared himself ineligible for re-election.

On February 10, 1912, however, seven Progressive governors, with seventy other Progressives representing twenty-four states, had met and urged Roosevelt to become a candidate for the Republican nomination. On February 11, at Columbus, Ohio, he had announced his personal platform, which included some, though not all, of the principles previously proclaimed by the Progressive Republican League. He endorsed the initiative,

Theodore Roosevelt's the referendum, the personal platform short ballot, the popular election of senators and presidential primaries. The recall he applied, much to the consternation of the more conservative of his friends, to the recall of judicial decisions, asserting that the courts should not be allowed to make law (see page 4519). Although not declaring himself, in the Columbus address, a candidate against Taft and La Follette, he had tossed off to the newspaper reporters after it was over the characteristic phrase: 'My hat is in the ring.'

As Taft had the support of the regular party machinery and was therefore likely to be the choice of the party convention if it were left free to choose, Roosevelt demanded that the nomination be made by means of 'direct primaries,' which would enable the voters within the Republican party to choose the party nominees without the intervention of a nominating convention. The Taft organization resisted the demand, and was met by the accusation of championing the system of boss rule. The fact that the Barnes machine in New York, the Lorimer machine in Illinois, the Penrose machine in Pennsylvania and similar organizations

of less reputation were ranged upon the side of Taft gave colour to the accusation; but most Americans to-day are willing to absolve Taft from the suspicion of deliberate, unworthy methods. Like most men elected to power through the machinery of an organized party, he was compelled to accept the organization or the alternative of certain defeat.

In the end the states took their own courses respecting the choice of delegates to the Republican National Convention. Thirteen states made use of primaries to select their delegates, and of these William Taft and La Follette carried nine, Roosevelt carried nine, Taft two and La Follette two. Most of the states without primaries selected Taft delegates; but in many states which returned Taft delegations, the Progressive element named contesting delegations which claimed to be the lawful representatives and therefore entitled to cast the votes of those states. The states which had held primaries sent a total of 278 delegates for Roosevelt, 68 for Taft, and 36 for La Follette.

Although manifestly the weakest of the three candidates, as the choice of delegates showed, La Follette by no means despaired of victory in the Convention. 'Both Taft and Roosevelt,' says his autobiography, 'claimed a majority of the delegates elected to the Convention. I felt confident that neither had a majority, and believed that if the contest were settled with anything like fairness, it would leave them with their strength so nearly even that the twenty-six delegates from Wisconsin and the ten from North Dakota instructed for me would constitute the balance of power in the Convention.' This prophecy of a deadlock proved true—but the hope that a deadlock would mean the nomination of La Follette proved utterly groundless.

For about a week before the Convention opened, the Republican National Committee was in session, deciding contests and preparing the lists of delegates entitled to seats as voting members of the convention. Of the 254 disputed seats which came before the committee, which had power to make up the temporary roll of the Convention, 235 were given to Taft

delegates. The temporary roll gave Taft a majority of about 20; the election of Elhu Root as temporary chairman proved Taft's control effective; and the approval of the report of the credentials committee proved that neither Roosevelt nor La Follette had any chance of the nomination by the Convention as now constituted. Roosevelt therefore advised his followers to take no further part in the proceedings, and his name was not formally presented. On the first ballot Taft received the nomination, with 561 votes, to 107 for Roosevelt and 41 for La Follette. There were, however, 344 members who refused to vote, and they were the potential nucleus of a new party.

The Republican party had been thus split, and a new party was in train, which was actually convnced in national convention two weeks later, at Chicago.

Three days after the adjournment of Taft's convention, and twelve days before the seceding delegates nominated Roosevelt as the Progressive candidate, the Democrats met in national convention at Baltimore (June 25), conscious of the fact

that the Presidency might be captured if only they could unite upon a candidate. The problem of agreement was, however, a difficult one, for the Democratic party too was menaced by faction. The Conservative wing, for lack of a more magnetic leader, gathered about Alton B. Parker; but, when a movement was started to make Parker temporary chairman of the Convention, Bryan denounced it as an effort to 'sell the Democratic party into bondage to the predatory interests of the country.' With the aid of some of the followers of Champ Clark, speaker of the House of Representatives and a candidate for the presidential nomination, however, Parker was elected temporary chairman. The Conservatives then organized the Convention, just as Republican Conservatives had organized the Republican Convention; and the Conservative press calmly declared Bryan eliminated from the list of possible nominees.

But Bryan had no idea of accepting elimination. On June 29 he electrified the Convention by presenting a resolution that pledged **Elimination of the Convention to nominate William Bryan** no man who either represented or was under obligation to the great financial interests of the country; and with the forensic skill for which he was justly famous he carried it by an overwhelming majority. Thus the Democratic party, before the actual balloting for candidates began, had committed itself to the choice of a progressive candidate. With Bryan himself out of the race for nomination—for three previous nominations each followed by defeat had eliminated him as a candidate—the candidate with the most progressive record was clearly Governor Woodrow Wilson, of New Jersey.

Two years before, at the call of the Irish-led Democratic machine of New Jersey, he had suddenly stepped out of the academic into the political world. Ex-Senator 'Jim' Smith, master of those that knew in New Jersey's Democratic circles, had 'consulted the entrails' and issued this augury: 'Dr. Wilson will have 800 delegates on the first ballot [for Governor], and in November [1910] will sweep the State.' When the votes of the first ballot had been laid before the



CHAMP CLARK

Born in Kentucky in 1850, Champ Clark became a member of Congress in 1893, leader of the Democratic party in Congress in 1909-10, and its speaker in 1911. In the Democratic Convention of 1912 he was Woodrow Wilson's rival.

Photo, E.N.A.

Convention, Dr. Wilson had actually counted 747 and a half, forty more than a majority, and the nomination.

During the campaign that followed, to the consternation of the machine that had called him into political being, Wilson had calmly hitched his soaring kite to progressive principles, and uncompromisingly promised to fight boss rule with 'pitiless publicity,' and to introduce not machine made men but independent men into public office.

In the state elections of 1910 Wilson had amply fulfilled 'Jim' Smith's second prophecy: 'Doctor Wilson... will sweep the State.' He had been elected governor by 49,000 in a state that in recent years had been consistently Republican. At once he had declared against 'Jim' Smith's plan to have himself chosen United States senator by the newly-elected New Jersey legislature, and had secured the choice of Smith's opponent, James E. Martine.

As governor of New Jersey Wilson had shown his ability to 'sweep the state' in a way other than that which 'Jim' Smith had had in mind; for he had put aside the machine men's

Wilson's reforms in New Jersey demands for 'their share,' had pushed through the legislature his Electoral

Reform Bill, his Corrupt Practices Act, his Employers' Liability Act and his bill for creating a public service commission, practising himself what he called 'lobbying for the public.' The Smith-Nugent machine that had called into being this new Frankenstein publicly branded him as 'an ingrate and a liar,' and even gained a majority of the legislature at the ensuing election; but the governor of New Jersey was already setting the stage for his next advance, the Democratic presidential nomination of 1912. He had capitalised a defeat at Princeton to win the governorship of New Jersey. He now capitalised a defeat in New Jersey to win the high office of president of the United States.

With a gift for formulating popular ideals in glowing sentences, never surpassed in American history, Wilson had toured the country preaching progressive sermons from the text of his own progressive programme that his legislature had enacted into laws. So frequent were his

expeditions from the state capital at Trenton that an enterprising cartoonist had pictured him, standing alone on a railway platform, travelling-bag in hand, with the train from which he had descended fast disappearing, and out of his mouth rolling the words: 'So this is Trenton!'

These wider contacts had convinced him that the support of his first great journalistic sponsor, Colonel George Harvey, editor of Harper's Weekly, was a source of weakness,

as tending to connect him with the 'interests.' **Friction with the big 'Interests'** He had therefore re-

quested Colonel Harvey to withdraw from his journal the standing motto calling for Wilson's nomination as president. Colonel Harvey's friends had expressed indignation, Colonel Henry Watterson in particular treating the incident with vitriolic fury. At a famous dinner, soon after Colonel Watterson's attack, Wilson had been mentioned, in racing language, as a competitor 'sired by "Jim" Smith, dammed by Henry Watterson'; but the incident was interpreted by the more progressive as proof that Wilson dared to spurn Wall Street, for it was understood that Harper's Weekly was controlled by J. P. Morgan & Co. He had also incensed another powerful group by expressing the wish that something at once dignified and effective 'might be done to knock Mr. Bryan into a cocked hat.'

But, while making enemies, he had made friends during his flying trips from his capital city of Trenton. In October, 1911, he had visited the state fair at Dallas, Texas, where he had met for the first time Colonel Edward M. House, a Bryan democrat, and the master politician (in the best sense of that much abused term) of the Lone Star State. The friendship there formed became a vital factor in the aftermath, not alone of the election of 1912, but of the eight years of Wilson's Presidency.

Recent events in Washington had cleared the stage for a man with Wilson's conception of the presidential office. For years the speakers of the House had practised the direction and promotion of legislation which, in Wilson's theory, properly belonged to the president. But

on March 19, 1910, had come a revolution in the House of Representatives that had stripped the speaker of this power, and thus left vacant exactly the kind of leadership that Wilson believed to belong of right to the presidential office.

Thus when the Democratic National Convention assembled at Baltimore on June 25, 1912, to choose a candidate for the Presidency,

Democratic National Convention assembles a factor that caused anxiety to seasoned

political aspirants such as Oscar Underwood, of Alabama, Governor Judson Harmon, of Ohio, and the speaker of the House of Representatives, Champ Clark, whose followers' chief joy was centred in the song: 'You gotta quit kicking my dog around.' Even La Follette admitted that Wilson 'had made a progressive record as governor of New Jersey,' and it was the belief of the general public that he could be relied upon to make a similar record as president.

The first ballot of the Democratic National Convention showed 440½ votes for Clark, 324 for Wilson, 148 for Harmon, 117½ for Underwood and 56 for unimportant candidates. As the Democratic rule, unlike the Republican rule, required a two-thirds majority to nominate, this was prophetic of a prolonged deadlock. As ballot succeeded ballot, Clark gained consistently, Wilson less consistently.

While the fourteenth ballot was being taken, Bryan skilfully checked the trend toward Clark by declaring that he would no longer support Clark, who was evidently New York's candidate, or any other man who was under obligations to Morgan, Ryan, Belmont 'or any other member of the privilege-seeking, favour-hunting class.' At once Wilson's chances began to improve, for the favour of Bryan was evidently tending in his direction. The knowledge that Bryan was to be the arbiter of his fate was, of course, unpalatable to Wilson; but candidates should not be choosers, and Wilson gratefully accepted Bryan's advances.

The twenty-fourth ballot showed that Clark had dropped below 500 votes and Wilson had mounted to over 400. The landslide that most conventions are

doomed to await with heart-breaking intensity at one stage or another was apparently close at hand. It was to be Clark or Wilson; and McCombs, Wilson's campaign manager, was inclined to withdraw Wilson's name, while Bryan gave similar advice. In view of the contest to follow, Democracy against Republicanism, party unity was vital. But Wilson was not convinced, and his name remained before the Convention.

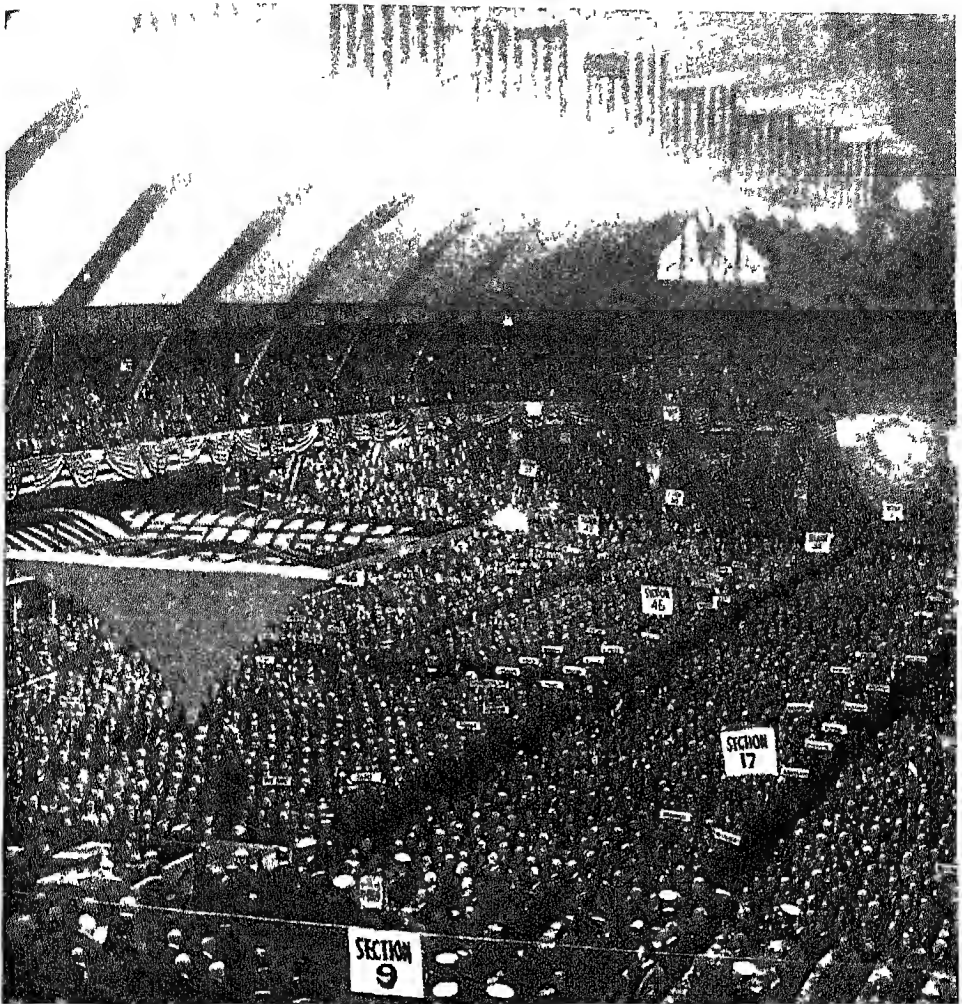
The fortieth ballot passed with no decision in sight; but Wilson was now past the 500 line; Clark and Underwood still trailed behind; while Harmon had ceased to breathe, politically. After the forty-second ballot an adjournment was taken, and when the Convention resumed balloting, on Tuesday, July 3, Wilson showed 602 votes and Clark 329. On the forty-fourth ballot Wilson showed 625. On the forty-fifth it was Wilson 633, Clark 306.

After that came the deluge. When the forty-sixth ballot was announced Underwood's name was formally withdrawn. Champ Clark released his delegates from their pledge to support him. Senator Harmon's name

Wilson chosen by the Democrats

was then formally withdrawn, and the ballot proceeded, Wilson against Clark, with delegates released. The Convention waited breathless as the teller's report was received on the stand. Clark received 84 votes, Wilson 990. The two-thirds had been secured and Woodrow Wilson was the leader of the Democratic party, and almost certainly the next president; for the Roosevelt secession had split the Republican party into two, the Taft Republicans and the Roosevelt Progressives.

On August 5 Roosevelt's Progressive followers met at Chicago in national convention, listened to the analysis of their party principles by Roosevelt—to give the government back to the people, destroy machine rule, enfranchise women, give to labour shorter hours and better wages, and safeguard social justice; and on August 7 it formally announced a third party ticket with Theodore Roosevelt, of New York, and Hiram Johnson, of California, as the Progressive candidates for president and vice-president.



ROOSEVELT'S SUPPORTERS ASSEMBLED IN NATIONAL CONVENTION AT CHICAGO

After the Republican party had split into the two factions of Taft Republicans and Roosevelt Progressives, the latter met in national convention at the Coliseum, Chicago, on August 5, 1912. Roosevelt here enunciated the principles of his party, including the enfranchisement of women and the destruction of machine rule. He lost in the three-cornered fight for the Presidency that followed, and the onus of determining America's attitude in the Great War fell on the victor, Woodrow Wilson.

Photo, E.N.A.

The presidential election of 1912 that followed was a bitter, boisterous and not too illuminating three-cornered fight, Taft's Conservatives, Roosevelt's New Nationalism, and the latter's near relative, Woodrow Wilson's New Freedom, contending for what most unexpectedly proved to be the right to lead America in the greatest crisis of history, the Great War. But in neither party was there the faintest suspicion of that fact. All signs seemed still to point to an administration that would expend its chief energies upon domestic problems, with the customary

addition of Mexican troubles to give a wider horizon.

The constitution of the United States provides for the election of the president and the vice-president, not by the direct vote of the people, but by presidential electors (the Electoral College) especially chosen for that purpose alone. The popular vote, while an index of public opinion, does not decide the election. In November, 1912, electors pledged to vote for Wilson were chosen in overwhelming numbers, 435 in all, as compared with 88 for Roosevelt and eight for Taft. The

popular vote was less overwhelming, but it too was convincing: Wilson 6,213,019; Roosevelt 4,119,507; Taft 3,484,959; Debs (Socialist) 901,873; Chafin (Prohibitionist) 207,828; and Reimer (Socialist Labour) 29,250.

It was easy to point out that the popular vote thus cast against Wilson was vastly greater than that cast in his favour; but the fact remained that he was overwhelmingly victorious in the Electoral College, the only matter of practical importance. It is also true, as La Follette later expressed it, that 'it was Bryan's superb leadership and courage at Baltimore' which had nominated him.

On March 4, 1913, at the age of fifty-six, Wilson entered the White House for the first time in his life; but he entered it as master. For the

Woodrow Wilson
elected President

first time since 1861 his party had been given effective control of the

government, the executive and both houses being Democratic. Under Cleveland's second administration, from 1893 to 1895, they had held the Presidency and a majority in both Houses of Congress, but the so-called majority was so rent by faction that effective action along clear party lines had been impossible. Wilson, however, had small cause to fear a similar nullification of victory. As a new-comer in national politics, he was unembarrassed by the host of enemies within the party which had confronted the restored Cleveland, and there seemed every likelihood of that continued party cohesion which is indispensable to effective control. Even the 2,500 Federal posts to be filled did not destroy it, although the president-elect refused to allow his peace of mind to be upset by the appalling political 'bread-line,' and left most of the more important officials, except diplomats, to fill out the terms for which they had been appointed by the previous president and confirmed by the Senate. The diplomats found their inevitable resignations accepted, and their places made ready for what Bryan later termed 'deserving Democrats.'

President Wilson's inaugural address was an interesting combination of the progressive ideals that had secured his election, with a long cherished desire to

see the nation return to the original principles upon which it had been first operated: 'to square every process of our national life again with the standard we so proudly set up in the beginning and have always carried in our hearts.' 'Our work,' he added, 'is a work of restoration.' The subjects that formed the centre of his programme of restoration were a revision of the tariff downward; the reform of currency and banking; the curbing of the control which the trusts had secured over the industrial life of the country; and laws for the promotion of social justice.

The first restoration, however, was naturally the restoration of the South to something like the position of influence which it had held in that 'beginning' to which he desired to return. The overwhelming victory of the Democratic party had indeed made this, in some degree, necessary; the rule of seniority of service inevitably gave the chairmanship of many committees to Southern men whose constituencies had kept them in office despite all changes, for the South had never ceased to be Democratic, and her representatives held seats never rendered precarious by the Republican victories that had kept the Democrats in opposition for sixteen years.

President Wilson's first Congress had 291 Democrats in the Lower House, and a combined opposition of only 143, of whom 124 were Republicans, 6 were Progressive Republicans and 13 were Progressives. The

President Wilson's
first Congress

Senate was more evenly divided, with 51 Democrats, 44 Republicans and one Progressive. Since the end of Reconstruction the Southern states had enjoyed their full share of leadership in Congress, but under this new Democratic regime they became dominant. Of the 58 committees of the House of Representatives, Southern men held the chairmanships of 40, and among these were nine of the ten most important. The Senate showed a smaller percentage of Southern leaders in important chairmanships; but 30 of the 73 Senate committees were under Southern chairmen. Of the ten cabinet ministers, four were from Southern states.

Thus it came about that the world crisis found the machinery of America's Federal government directed by men habituated to opposition, and, in many cases, by men wont to think of their own states as hardly in full partnership with those of the long dominant North.

The nation gets its first clear vision of a new president not from his inaugural address, but rather by the prosaic announcement of his cabinet. Wilson's inaugural address breathed a lofty note of dedication. 'This is not a day of triumph,' he said, 'it is a day of dedication.' But his cabinet, when announced, bore the names of men largely responsible for his political triumph: William J. Bryan, secretary of State; William G. McAdoo, secretary of the Treasury; Albert S. Burleson, of Texas, postmaster-general; Josephus Daniels, of North Carolina, secretary of the Navy; appointments which conformed to the best traditions of party reward for party service. Of his entire cabinet, only three appeared to the public to have been fitted by previous training or experience for the work of their departments. McReynolds, of New York, the new attorney general, had been concerned in prosecutions of trusts; Franklin K. Lane, of California, secretary of the Interior, had served on the Civil Service Commission; and William B. Wilson, secretary of Labour, had held high office in the United Mine Workers of America.

No student of politics will be likely to quarrel with a president-elect for allowing politics to direct his choice of cabinet advisers. It is the road that every president, save perhaps John Quincy Adams, has frankly travelled; and all will travel it so long as party government endures, or pay the heavy price of failure. But the public, while ready to pardon action or to applaud ideals, insists that ideals and actions shall run a common course, and the announcement of such a cabinet after such an inaugural address caused adverse comment in all parties and in all circles. The nation could not avoid the opinion that it was politics and not lofty idealism that had selected Bryan as secretary of State, a post for which, by training, by habits, by the very character

of his mind, he was ideally unfitted. But Bryan's appointment was essential to any effective Democratic government; his associates brought with them a combined political influence over all sections of the party; and all offered one quality not unpleasing to a president frankly desirous of power: they were men likely to accept his leadership if not his domination in the programme that he was mapping out for himself and for them.

These appointments therefore were less rewards for party services than a bid for party unity, a unity which ultimately became so great as to give rise to the phrase 'a one-man democracy.' It was grossly unfair to insinuate, as many did insinuate at the time, that Wilson had sold himself to the long-detested faith of Bryanism, or bowed to the yoke to win a personal triumph. He had opposed Bryanism for years, but the issues that had brought Bryan into the white light of national leadership sixteen years before, and the issues that later emerging had kept him there, were no longer the issues of prime importance. The free silver heresy (see page 4512) was gone from the arena of national conflict. Imperialism was no longer the cloud that menaced traditional Americanism. In both parties the fight now centred about the basic question of control of government, and of the vast material development which those sixteen years had so enormously accentuated. Bryan's chief fear was the same as Wilson's, the same indeed as Roosevelt's and La Follette's—Wall Street control of the government of America; and Bryan's chief demand was the same as theirs, a larger share of the common blessings of life and the rewards of labour for the toiling masses of the republic.

There was thus nothing dishonourable, nothing even of doubtful morality, in Wilson's acceptance of Bryan's aid, and in Wilson's assignment of the post which alone could secure that aid. Had he known the character of the problems soon to be hourly confronting his secretary of State, and still made the selection, he would have merited all the abuse that Bryan's appointment brought upon him. But such knowledge was denied not alone

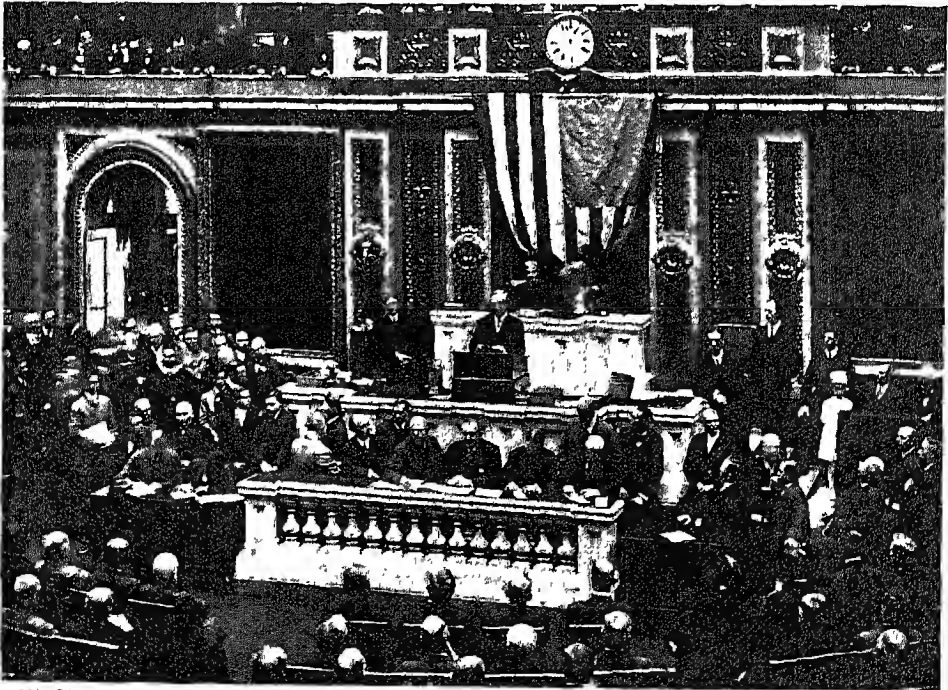
Criticism of the Cabinet

to him, but to all mankind. The selection of Bryan as secretary of State proved an unwise selection ; but his rejection might quite as well have proved an unwise rejection.

Roosevelt had accustomed the American people to expect Napoleonic surprises from their chief executive, an expectation which his judicial successor, William H. Taft, had made no attempt to fulfil. Wilson was constitutionally unable to flash in the limelight as Roosevelt had done ; but his historical-mindedness served to furnish the surprise that was needed, at the very beginning of his term of office. Discarding the established practice of the executives of over a century and a decade, he announced that his messages would be delivered to Congress in person, instead of in writing and by the hand of an executive messenger. Jefferson had abandoned the practice knowing himself more effective in written than in spoken words ; and each succeeding president had followed his example, impelled for the most part by no

stronger motive than a natural tendency to follow precedent. Wilson, however, prided himself, and with ample justification, upon the command of the arts of a trained and experienced rhetorician, and wisely extended his policy of restoration to this field also.

It is a statement not likely to be disputed that much of Wilson's power came from his ability as a public speaker. Indeed, while not in the strict sense an orator, he possessed beyond any of his predecessors in the White House the power to sound the note of idealism in politics. Whether in the vague promises which of necessity make up the inaugural address, in the discussion of the normally cold propositions of finance and tariff or in the illimitable field of international affairs, his speeches and state papers abound in phrases which quicken the pulse. But eloquence and statesmanship have surprisingly little in common ; and in general the world's constructive statesmen have not ranked among the world's



WOODROW WILSON DELIVERS HIS FIRST PRESIDENTIAL MESSAGE TO CONGRESS

For 112 years no president of the United States had addressed Congress in person when on April 7, 1913, President Wilson spoke personally on the subject of tariff reform to Congress assembled in special session in the House of Representatives. The new president is seen at the reading desk, with Speaker Clark (left) and Vice-President Marshall (blurred) seated on the rostrum behind him.

Photo, Topical Press Agency

greatest orators. The aim of the orator is to arouse emotion : the aim of the statesman is to solve knotty problems, problems that yield only to patient labour, calm, reasoned processes and balanced judgement ; and in the end it is deeds, not words, that qualify statesmen for the hall of fame.

In an attempt to assess Wilson's achievements, and weigh them against his failures, it is only fair to remember that his so-called fellow leaders were for the most part experienced only in the work of opposition. Before the products of the restored South had become accustomed to the rôle of national leadership, they were called upon to face foreign problems greater than had confronted American leaders in any previous period, even that of the Civil War when their states had been ' the enemy.'

Wilson's political philosophy made him necessarily the leader, the man to assume the powers which had so lately been wrested from the speaker of the House of

Representatives ; and accordingly, on April 7, 1913, he summoned Congress into special session, and delivered in person his first presidential message. It devoted itself to the topic of tariff reform. ' The object of the tariff duties, henceforth laid,' he said, ' must be effective competition.' Already the Democratic leader, Underwood, chairman of the Ways and Means Committee of the House, had framed a tariff bill on the lines which the president indicated, a gradual reduction. It lowered the rates by about eleven per cent., and provided an income tax to overcome the deficit expected to result. Despite the combined opposition of 120 Republicans, 14 Progressives and 5 Louisiana Democrats, who wanted more protection for sugar, the Underwood tariff passed both houses, but only after the president, on May 26, 1913, had warned the country that an insidious lobby of ' the interests' had invaded Washington and was seeking by stealth to defeat the measure, a warning which a later Congressional investigation convincingly justified. On October 3, 1913, President Wilson signed the Underwood tariff bill, not as a perfect measure,

but as an earnest of good faith on the part of the party that the people had placed in control.

Long before that date, however, the administration was deep in the problem of banking and currency reform. Senator Owen, chairman of the Senate Committee on Banking and Currency, and Congressman Glass, chairman of the Corresponding House Committee, in consultation with the president, had prepared a bill to that end, which, on June 23, the president commended to Congress. On June 26 the bill was introduced into the House of Representatives ; after prolonged debate it passed both houses without material alteration, and on December 23, 1913, it received the president's signature. Its aim, and its result, was the creation of an elastic currency, with the consequent lessening of the danger of panics such as had so often devastated American business. As the bill borrowed not a little from previous Republican proposals for currency reform, and was sustained by thirty-four Republican and eleven Progressive congressmen, and by one Progressive and three Republican senators, it takes rank above mere partisan measures.

Under its provisions the nation is divided into twelve districts, in each of which the national banks are required to form a district reserve bank with a capital of not less than \$4,000,000. In this district or regional bank, member banks, which include national banks, and such state banks and trust companies as have joined, deposit reserve funds, and from it they can borrow on approved collateral. These regional banks are under the control of the Federal Reserve Board composed of the secretary of the Treasury and the comptroller of the Currency, ex officio, and five members appointed by the president, with the consent of the Senate. This central board restrains the regional banks in general policies and supervises the conduct of their business, to the ends first of security and secondly of the circulation of a currency that may be safely expanded or contracted as the needs of business demand. This Federal Reserve Bank, opening for business on

November 16, 1914, steadied the finances of the nation during the trying days of world war that had already begun, and was a powerful instrument for financial soundness during the critical years that followed.

So far the Bryan connexion had undoubtedly proved a source of strength; and it was not less so in carrying out the third element of the president's programme, the control of trusts, whose increasing dominance had been one of the outstanding features of American history for about three decades or more (see page 4515)

The centralising of the control of industry had greatly increased production.

The steel industry, barometer of business in the modern world, had produced 4,277,071 tons in 1900; by 1914 its output was approximately 32,000,000 tons. And many other manufacturing industries, during that same period, showed gains as great; but in all alike the gains were made by methods of centralised control which tended to submerge the individual into the group, and to make highly organized groups, employers or employees, the units of human society.

With a racial diversity such as no other nation has ever known, America had been standardised beyond all precedent. The story is told of Lord Northcliffe that on a visit to America he was asked the question: 'Will America ever have a revolution?' Calling his interlocutor to the window of the great office building, Northcliffe pointed to the polyglot multitude that crowded the street, and remarked: 'Do you see those people? Every one is wearing exactly the same hat. Every one looks the same. Every one is the same. There will be no revolution.' So far as material existence was concerned all races had been levelled to a pattern; and the conviction was growing that this process extended to the minds and souls of men as well as to their outward appearance. Disregarding the fact that for every able machine keeper there was an ever-open way of escape upward, the cry was being raised that centralised industrial control and intense specialisation were turning human souls

into mere automatons. 'The machine,' the critic cried, 'has become the master, and to man has been assigned only the unindividualistic task of its keeper.'

In his volume, *The New Freedom*, President Wilson had already written down his interpretation of what had happened, and his prophecy of what would happen unless present tendencies toward absolute control by corporations could be altered. His election to the Presidency had placed him in a position where he might properly hope to alter them; and early in 1914 he announced his preliminary plan of attack. It contained five specific elements:

1. A Federal commission to supervise all persons, whether individuals or corporations, engaged in interstate trade.
2. The prevention of interlocking directorates among great banks, railways, mining corporations and trust companies.
3. The clarification of the Sherman Anti-Trust Act of 1890, by specifying a number of actions that should be considered unlawful under its provisions.
4. The definite prohibition of rebates, price discrimination, and other acts of unfair competition.
5. The conferring upon the Interstate Commerce Commission of power to regulate the issue of railway stocks and bonds, and the expenditure of funds accruing from such issues.

As his laws against corporation abuses in the state of New Jersey, the final successes of his term as governor, had been called the 'Seven Sisters,' so this new presidential programme became known as the 'Five Brothers'; but in process of enactment the five were telescoped into two, the first creating a Federal trade commission, to check the rising power of trusts, and the second, called the Clayton Anti-Trust Act, designed to afford suitable punishments for such corporations as ventured to exercise undue powers. The latter law made it unlawful, for example, for one corporation to acquire control of another by securing possession of its stock, and prohibited interlocking directorates, save under specified conditions. Under it the Interstate Commerce Commission, the Federal Reserve Board and

State control
of Corporations

the Federal Trade Commission were given power to execute the law under court supervision. Another important feature of the Clayton Anti-Trust Act provided that labour organizations should not be deemed 'combinations or conspiracies in restraint of trade' in the sense contemplated by anti-trust legislation; but a Federal Supreme Court decision of January, 1921, considerably restricted the immunity thus accorded labour unions by declaring secondary boycott not legalised by the Clayton Act.

Thus the first nineteen months of Wilson's administration in large measure justified the praise of William Allen White, who declared the first term 'the fastest-moving four years in our economic and social history.' So far the Bryan connexion had apparently been a source of strength, and had the problems remained chiefly domestic, as the outlook at the time of Bryan's appointment seemed to prophesy, it might on the whole have produced more strength than weakness.

In the field of foreign affairs, however, perils soon proved more fast-moving than solutions; and Bryanism soon ceased to be reckonable, even by the administration, as an asset. Having packed

Problems of Foreign Policy the diplomatic service with his own partisans, whom he euphemistically called 'deserving Democrats,' he faced his problems with child-like faith in the efficacy of phrases, and child-like ignorance regarding the ways of diplomats. Important questions of foreign policy had, of course, been waiting for this as for every new administration; but they had fortunately moved slowly to the point of dominance.

Since the outcome of American intervention in the affairs of Cuba had become apparent, a new idealism had tended more and more to appear in America's relations with the West Indies and with Central America. Under Presidents Roosevelt and Taft the spirit of the Cuban policy had been cautiously applied to avert the financial ruin that from time to time had menaced one or another of the states of the Caribbean. President Roosevelt, in 1903-4, had taken Panamá under American protection by specific treaty agreements. In 1907 he had convened at

Washington, with the aid of President Diaz, of Mexico, a conference representing Guatemala, Honduras, Salvador, Nicaragua and Costa Rica, and there treaties and conventions were signed by the delegates of the latter states pledging their respective governments to ten years of peace. In 1907 Santo Domingo's request to be taken under the financial control of the United States

had been accepted by **New relations with Latin America** the Senate at President Roosevelt's sug-

gestion, and a formal treaty had been made defining that relationship. By the date of Wilson's inauguration it was evident that the old policy of leaving American neighbours to their fate, provided that fate did not mean the extension of European control over them, had given place to a new policy of keeping them from falling into financial or political conditions that might tempt aggression from European powers.

This new American policy had met with grave suspicion in Mexico, and Americans had been securing concessions and initiating developments which aroused the fear, perhaps not wholly groundless, that Mexico was in a fair way to become a sort of industrial dependency of the United States. In 1911 Francisco Madero had succeeded, by a combination of arms and promises to the pcons, in driving out President Diaz, securing an election that made himself president and winning the recognition of the United States and other leading powers. But his promises had remained unfulfilled; he had lost his dominant following, and in 1913 had been captured and imprisoned by a new rebel leader, General Victoriano Huerta. Five days after his capture Madero and his vice-president had been shot at night, February 23, 1913, while in the hands of Huerta's officers; and on March 3, 1913, the day before Wilson's inauguration, Huerta had taken the oath of office that made him president of Mexico.

Following long established custom, the European nations had recognized Huerta, as they had recognized his predecessors, asking no questions regarding the origin of the power which was his. But President Wilson sternly refused to follow such

**VICTORIANO HUERTA**

His desertion of Madero in 1913 resulted in General Victoriano Huerta's accession to short-lived governmental power in Mexico. Popular antagonism brought about his resignation in 1914, and in 1916 he died in exile.

Photo, Associated Press

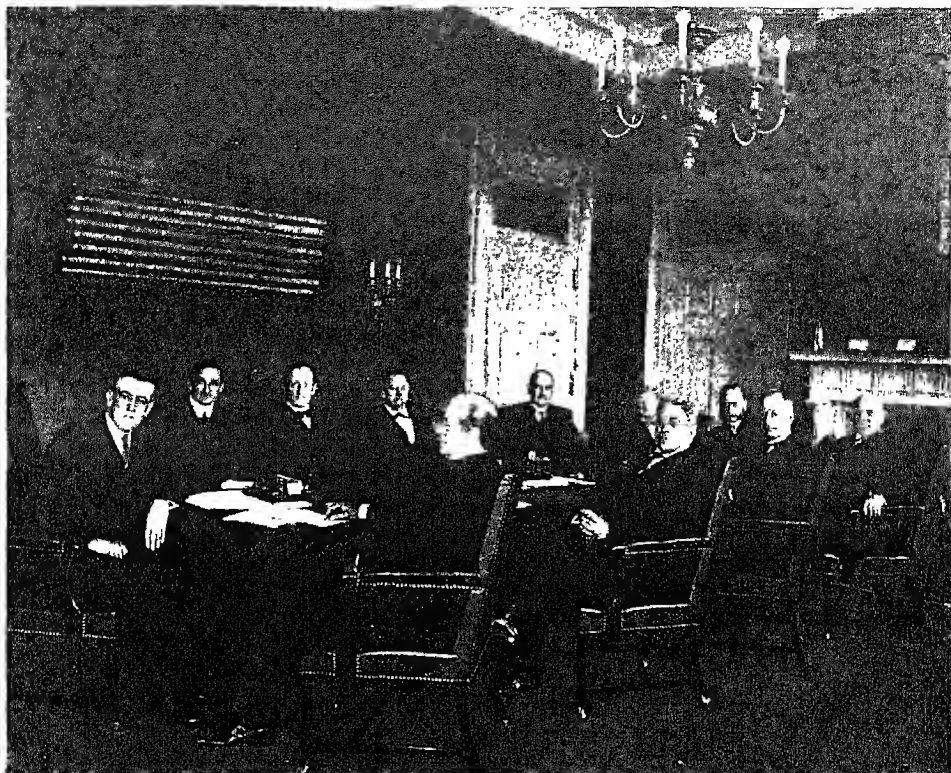
precedent. Toward the end of March, 1913, he formulated his general policy, to cover Mexico and all Central and South America, in the words that pledged co-operation 'only when supported at every turn by the orderly processes of just government based upon law.' But it soon became unmistakably evident that a 'just government based upon law' did not exist, nor was likely to arise, in Mexico; and President Wilson expressed his realization of that fact in the words: 'We can have no sympathy with those who seek to seize the power of government to advance their own personal interests or ambition. . . . We dare not turn from the principle that morality, not expediency, is the thing that is to guide us.'

These statements made no change in Huerta's plans, nor did they appeal to the Mexican people, suspicious as they were of America's attitude toward their independence. But the refusal of recognition made it difficult for Huerta to borrow money, and encouraged other ambitious rebel leaders; Venustiano Carranza and Francisco Villa, to rebel against him.

**REBEL MEXICAN LEADERS WHO CHALLENGED HUERTA'S POWER**

The murder of Madero in 1913 drove Venustiano Carranza (left) into strong opposition to the provisional president Huerta, and he proclaimed himself general in chief in the revolution that he initiated. Recognized by Wilson as Mexico's de facto president in 1916, Carranza was himself killed by revolutionaries in 1920. Francisco Villa (right), famous as a leader of guerilla warfare, supported Carranza against Huerta in 1914, but later opposed the former and attacked the government he set up.

Photo, Keystone View Co. and (right) E.N.A.



PRESIDENT WILSON AND HIS CABINET IN 1914

Upon Huerta's refusal to agree to President Wilson's demands in April, 1914, the latter asked Congress to pass a resolution justifying armed intervention in Mexico. By 337 votes to 37 the House of Representatives passed the resolution, declaring that their action was directed, not against Mexico as a country, but against General Huerta. Preparations for war went forward, but it was averted by the mediation of Argentina, Brazil and Chile. Huerta resigned on July 15.

Photo, American Press Association

President Wilson's policy was by this time bitterly denounced by many of his own party leaders, by the leaders of the opposition party and by the American ambassador in Mexico, Henry Lane Wilson, a Taft appointee who had been left undisturbed by the new administration. To recall the offending ambassador was easy, but to supply the deficiency thus created at a time of crisis required recourse to the expediency of sending a personal representative, since the sending of a new ambassador would have been in effect the recognition of Huerta. Accordingly John Lind, of Minnesota, was selected to bear to Mexico the demands of the American chief executive, which included a cessation of warfare, a general amnesty, a general election free from control by the existing Mexican authority, and one in which Huerta himself should not be a candidate. These demands Huerta scorn-

fully rejected, thus chancing the 'big stick' that had been so often referred to in the strenuous days of Roosevelt.

But the 'big stick' failed to appear. Instead there emerged a new species of foreign policy, one that puzzled the Mexican usurper, enraged the American opposition and the party of the president alike, and called from Europe unbounded scorn. Its first tenet declared: 'Everything that we do must be rooted in patience and with calm, disinterested deliberation. We can afford to exercise the self-restraint of a really great nation which realizes its own strength and scorns to misuse it.' In essence, these words describe the policy that Britain adopted towards China in 1927, but in 1913 they were novelties.

In October, 1913, came the additional Wilsonian announcements, heartening to Mexico and her neighbours, distant and close at hand, in exact proportion as they

believed it. 'The United States will never give up one additional foot of territory by conquest. Mexico was certainly excusable if she received these statements as the convenient phrases of a suitably aggressive neighbour, for no American can say, unless possessed of the gift of prophecy, what America will never do.'

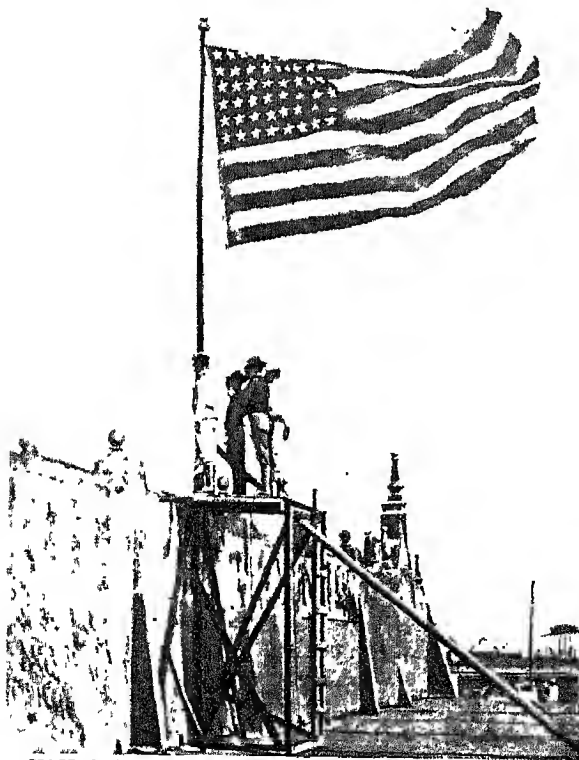
These declarations once made, President Wilson settled down to what he called 'watchful waiting,' a phrase susceptible of being understood as waiting for an opportunity. In the face of not inconsiderable provocation from Huerta, he exercised admirable self-restraint, but left Huerta unrecognized. At last one action, interpreted by Huerta, and perhaps with justice, as inconsistent with America's verbal creed, precipitated a crisis. On April 10, 1914, some American blue-jackets who had landed at Tampico for

oil and gasoline were arrested by Huerta's officers. Although Huerta promptly released the prisoners and expressed regret for their arrest, Admiral Mayo, commander of the American forces in the harbour, without express authority from President Wilson, demanded additional reparation in the form of a specific, formal apology, the punishment of the officers responsible for the arrests and a salute of the American flag before six o'clock p.m. on April 19. These things Huerta refused, and on April 20 President Wilson appeared before a joint session of Congress and asked for the passage of a resolution that would justify the employment of force against Huerta. The House promptly adopted the resolution, 337 to 37, but in ignorance of the fact that on April 21, compelled by the arrival of a German ship loaded with munitions for Huerta, the American forces had occupied Vera Cruz. War with Mexico

now seemed inevitable; but the mediation of Argentina, Brazil and Chile managed to avert it, though 126 Mexicans had been killed and 195 wounded, and 8 American marines had perished, during the capture of Vera Cruz in preparation for the salute that never came.

But the odds were too strong for Huerta, who retired to Europe on July 15; and within about a month the new dictator, 'First Chief' Carranza, marched triumphant into the capital city. About his present power there was no doubt, and on September 15 President Wilson ordered the removal of American troops from Vera Cruz, leaving Carranza to face, not peace, but his embittered ally, Francisco Villa, now bent upon revolution. Soon his efficient devastation of the northern provinces had brought them to starvation; and on March 6, 1916, Villa ventured to invade American territory, killing eighteen American citizens on the soil of New Mexico.

At once 6,000 American troops under Pershing were



HOISTING THE AMERICAN FLAG AT VERA CRUZ

A salute to the American flag was part of the reparation demanded for the arrest of some American sailors by Huerta's officers in April, 1914. A captain of marines and an ensign are here shown hoisting the stars and stripes over the Terminal Hotel, headquarters of the U.S. force that occupied Vera Cruz

Photo, W. F. Taylor

detailed to pursue him into Mexican territory, there to aid Carranza and capture his rebellious antagonist, Villa. But Carranza at once declared foreign invasion, even though it professed to be in the interest of the existing government, an outrage on Mexican sovereignty; and while the two nations disputed over this fine point of procedure Villa again crossed the American border and invaded Texas. Again General Pershing pursued him into Mexico; but when the year 1917 dawned Villa was still at large, Carranza was still unreconciled to America's method of aiding his government, and the world was wondering what difference the president of the United States could see between the banished Huerta and the victorious Carranza, and why international morality had dictated the banishment of the one and the success of the other.

In January, 1917, the American troops were withdrawn from Mexico, and the American nation was conscious of the fact that neither 'watchful waiting' nor military invasion had served to lessen the Mexican problem.

Meanwhile Colombia had raised the issue of damages due to President Roosevelt's Panamá Canal policy, and on June 16, 1914, a treaty had been signed giving Friction over the Panamá Canal Colombia \$25,000,000 and preferential privileges on the canal in return for her recognition of the independence of Panamá, a treaty not to be ratified until 1919, after the Senate had eliminated the first article expressing the regret of the United States for events that had interrupted the course of friendly relations between the two nations, Colombia and the United States of America.

In one other respect, also, the canal had led to friction and foreign adjustment. In 1912 Congress had exempted American coastwise trade from a toll of \$1.25 per ton imposed upon vessels passing through the canal. Great Britain had protested, declaring that the Hay-Pauncefote Treaty guaranteed uniform charges upon all vessels using the canal. On March 4, 1914, President Wilson boldly declared in favour of the British contention, and succeeded in bringing a reluctant Con-



GENERAL PERSHING

This photograph of the well-tried American general, John Joseph Pershing, was taken during his Mexican expedition against Francisco Villa in 1916. In 1917 Pershing commanded the American Expeditionary Force in the Great War.

Photo, E.N.A.

gress to his point of view, greatly to the credit of the nation over which he presided.

On the whole it is fair to say that, in foreign affairs, despite inevitable errors of judgement, the Wilson administration had so far merited the sympathy of self-governing nations by making it abundantly clear that it approached its international problems in a spirit of generous, if at times quixotic, idealism. Despite the suspicions that the Mexican policy had accentuated, President Wilson had demonstrated a sincere desire to promote justice, to discourage despotism and to respect not alone the letter but the spirit of every international obligation.

But mere idealism solves few international tangles in this stage of strife between nations, whatever fate may be reserved for it in future; and the contest with Mexico had measurably lowered the prestige of the Democratic regime, not alone in America, but in Europe as well. The Great War, now in progress, had already demonstrated the fact that the world was facing problems little connected with the desire for 'just government based

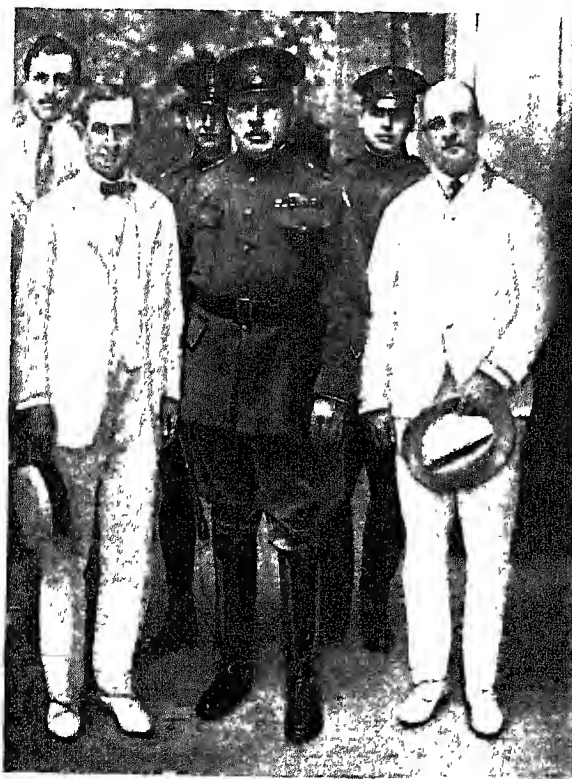
upon law, and each successive act of Germany in defiance of international law had forced the United States nearer and nearer to the ultimate resort to force.

Despite this fact, the pacifist philosophy, so ardently advocated by Bryan and so fruitlessly followed by the administration in the hope that participation in the war might be avoided, was still in the ascendancy, and no preparation for effective action had been taken by the government. In vain did far-sighted leaders of both parties urge preparation for the defence of the nation's basic rights. In vain did the leaders of the Plattsburg movement, initiated by Major-General Leonard Wood and a group of representative civilians, and aiming to train a body of officers against the hour of need, plead for one word of sympathy with their

work. In vain did great civilian organizations, conscious of the danger of America's defenceless condition, and of the difficulty of creating an army out of a non-military civilian population, pour into the mail bags of the Federal government petitions in favour of preparedness. Secretary of State Bryan believed that, at a word from the president, an army of a million soldiers could be assembled between sunrise and sunset, and the president, while too wise to see safety in such a foolish vision, persisted in the assertion that the nation was already adequately prepared for any likely contingency. The advocates of preparedness he contemptuously dismissed as 'nervous and excitable, men whose debates were merely 'good mental exercises.' But all the time the war cloud was drawing nearer, and those who believed in the inevitability of American participation increased.

On May 7, 1915, the *Lusitania* was lawlessly sunk by a German submarine, with a loss of 1,200 lives, including more than a hundred Americans. In view of the president's consistent assertion from the first that America's neutral rights must be respected by all belligerents, the nation impatiently awaited action; but it waited in vain. His first public utterance after the outrage dismayed all preparedness men, disgusted all Allied sympathisers and brought the flush of triumph to those whose sympathies were with the Central powers. On May 10, 1915, he said to an audience of newly naturalised citizens in Philadelphia 'There is such a thing as a man being too proud to fight; there is such a thing as a nation being so right that it does not need to convince others by force that it is right.'

Thus Bryanism in war appeared ensconced, impregnable; but on May 13, 1915, the president's *Lusitania* note



MAJOR-GENERAL LEONARD WOOD AND STAFF

From 1910-14 the American army was reorganized by its chief of staff, Leonard Wood, who was created major-general in 1903. He strongly advocated a policy of preparation for war and served in France when America eventually intervened. In 1921 he became governor-general of the Philippine islands

Photo, Keystone View Co



GERMAN COMMEMORATION OF THE SINKING OF THE LUSITANIA

The German justification for their action in sinking the Cunard liner *Lusitania* in May, 1915, is allegorised on a satirical medal struck at Munich by Karl Goetz to commemorate the event. On the obverse, ignoring the warning finger of Count Bernstorff, crowds buy tickets from Death at the Cunard office, which bears the motto 'Business above everything.' On the reverse (right) the sinking ship is seen to carry aeroplanes and munitions in defiance of the 'No contraband' declaration

British Museum, photo, Oxford University Press

appeared, with a dash of menace that dismayed Bryan, and gave pause to all who had read full meaning into the unfortunate phrase, 'too proud to fight.' The president's formal position seemed irreconcilable with his Philadelphia speech, for he calmly warned the German government that America would not 'omit any word or act' needed to defend the rights of her citizens; and on June 8, 1915, Bryan resigned his post as secretary of State, with the declaration that the maintenance of peace rather than the maintenance of rights was the only policy that he could consent to execute.

Thereafter the president's attitude toward the preparedness movement seemed to alter. In his message to Congress in December, 1915, he denounced 'hyphenates' and urged national preparedness; but Congress was still facing in the direction in which the president had so long led, and the country was uncertain about the real meaning of his apparent 'about face.' Indeed, Secretary of War Garrison was himself sceptical, and now emphasised his doubts by resigning his post on the ground that the president was not supporting him and that Congress was not willing to make any adequate preparations for the nation's defence.

It is hard for a camel to go through the eye of a needle, it is hard for a rich man to enter into the kingdom of Heaven, but for an ambitious president, approaching the end of his first term, to hold his face like flint in one direction, with multitudes surging in every direction, is a task analogous to both. When Wilson was re-elected president for his second term in 1916 the chief argument of his supporters was compressed into one telling phrase: 'He kept us out of war.'

But one month less two days after his second inauguration, on April 2, 1917, he delivered to Congress, assembled in extraordinary session, a war message whose glowing phrases and lofty idealism thrilled all civilization. America, he said, had been thrust into belligerency, but she must meet her unwelcome responsibilities with clear vision, with purposes clearly defined.

We must put excited feeling away. Our motives will not be revenge or victorious assertion of the physical might of the nation, but only the vindication of right, of human right, of which we are only a single champion. . . . The wrongs against which we now array ourselves are no common wrongs; they cut to the very roots of human life. . . . We are glad, now that we see the facts with no veil of false pretence about them, to fight thus for the ultimate peace of the world and for the liberation of its peoples, the German people included:

for the rights of nations and at an small and the privilege of men everywhere to choose their ways of life and obedience. The world must be made safe for democracy. Its peace must be planted upon the tested foundations of political liberty.

It is easy to scorn the rhetorician when no crisis calls for his art. Tyrtaeus the poet was but an insignificant figure in peaceful Greece; but when the crisis came the Spartans, facing battle, thanked their gods for a voice that could still all petty passions and give unity of soul. No generation bent upon the gains of peace can understand the response that followed the clarion note from the presidential trumpet which so often had given but uncertain sounds. On April 4 the Senate, with but four dissenting votes, accepted his definition of the nation's aims, and on April 6 the House followed with only fifty votes in the negative.

As Austria had taken no part in the submarine warfare that had proved the deciding factor in bringing about this declaration, she was not included in the declaration of war; but later, on December 7, 1917, the declaration was extended to her also. Turkey and Bulgaria, the other allies in the group known as the Central powers, were never included in America's formal declarations of war; but their cause was, of course, inextricably linked with that of Germany and Austria.

America faced her world war—hers from the first if the president's interpretation of its meaning be accepted, as Congress had accepted it—with a standard of living the highest in the world, if not the highest in any land, in any age. With a population approaching 120,000,000 and the largest entirely free market in the world, stretching over 3,000,000 square miles, she had not yet discovered any very active interest in foreign markets, but was content to prosper apart, behind her high tariff walls, and to thank God that the strife of nations was not her strife. England she gladly accepted as her middleman, trusted to bring to her shores the tea, furs, rubber, raw silk and other foreign material needed for her comfort and industrial prosperity.

Her educational machinery, decentralised and locally controlled, while far from perfect, was available for all classes, and her vast system of public libraries brought the elements of culture within easy reach of virtually everyone who cared to make the slight exertion necessary to enjoy them. The development of railways, so rapid since the Civil War, had opened even the most distant corners of the country to communication with the outside world. In 1860 there had been only 36,626 miles of railway in the country. By 1900 there were 104,262 miles, and the next decade showed an increase of 22·6 per cent., while the total railway mileage in 1914 was 263,547.

This extension, with accompanying improvements in roads and waterways, had wrought a marvellous change, in both urban and rural life. The farmer or ranchman of a few generations earlier had produced on his own grounds almost everything that his life demanded. His heat came wholly from wood, cut with an axe wielded by his own hand. He killed and cured his own meat and produced his own wool, which was cleaned and carded on his own premises and worked on domestic looms or spinning-wheels which were part of the normal household furniture. A tiny village within not too easy reach was resorted to for a few articles such as pepper, salt, sugar and spices, and served as an exchange for such surplus products as he could readily carry with him on horseback or pack-mule. His shoes had been generally made by the village shoemaker, who used the leather that his customer's own cattle had supplied; and his own grain was ground for 'toll' by the local mill. In the village, if not too small, there was likely to be a factory that made the small agricultural implements with which he laboured. But in general he had owed astonishingly little to 'the settlements.'

By the opening of the decade before the Great War rural conditions were completely altered. Centralised manufacturing and shipping facilities beyond all precedent in history connected him with the hitherto distant world. A free market throughout

the entire nation offered unparalleled opportunity for the development of organized, nation-wide economic service, and the most secluded rancher of 1914 was within easy reach of the latest Paris models, the newest styles of manufactured goods, the most recent patents in prepared foodstuffs, the latest editions of metropolitan papers and magazines that brought him the world's news of the hour.

This transition from the period of the farmer's self-sufficiency to that of rural dependence upon cities had been so gradual that the new generation, born to new privileges of world contact, scarcely realized how amazing was the difference between its position and that of its fathers and grandfathers.

These changes had, of course, been accompanied by enormous growth in the size of factories, a standardisation of products, and the inevitable congestion of population into great industrial centres. In 1890 only about 36 per cent. of America's population had dwelt in towns of over 2,500 inhabitants. By 1910 the urban

population had grown to over 46 per cent., and by 1914 probably one half of the nation's population lived in urban centres; while the increasingly industrial character of immigrants, who numbered 1,285,549 during the high-water mark of 1907, tended always toward the cities.

Among new manufacturing industries that had most strikingly altered American life during the decade before 1914 the automobile held first place. In 1899 there had been only 600 automobiles built and sold in the United States; by 1909 there were 114,891 sent out of American factories, and with the increase had come a sudden era of road building. By 1914 the automobile industry promised to become in the near future the leading manufacturing industry in America. Under its influence suburban life had taken on a new aspect, as it had ceased to mean social isolation; and the great motor-truck industry had emancipated the horse as a beast of burden. The predictions of increased automobile production uttered in 1914 have been amply realized by



PRESIDENT WILSON HEADS THE WAR PROCESSION AT WASHINGTON

America had held aloof from the Great War throughout Woodrow Wilson's first presidential term, and his supporters urged his re-election in 1916 on the grounds of his pacifism. In 1917 American feeling, earlier aroused by the Lusitania episode, was outraged by the sinking of further American ships, and Wilson decided upon American intervention. He is here seen, flag on shoulder, marching up Pennsylvania Avenue, Washington, when the first recruits were called to the colours.

Photo, E.N.A

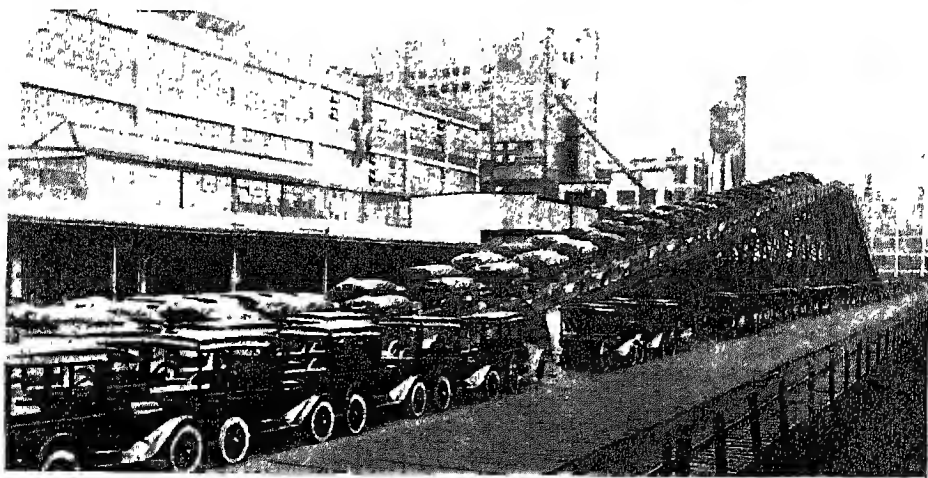
subsequent development. In 1925 America had 16,454,000 automobiles, or 81 per cent. of the world's supply. It has been estimated that there was an average of one automobile for each 5.11 inhabitants of the United States in 1925. In California the ratio was one to each 3.11 persons.

The changes wrought by the automobile were amplified by the vast progress that electrical invention and manufacture had made during the same period. By 1914 Alexander Graham Bell's 'latest American humbug,' as a critic had called the electric telephone in 1876, had reached the ten-million mark within the United States, and the figure was increasing at an astonishing rate. So rapid has been that increase since 1914 that the American Telegraph and Telephone Company's report of 1925 declared that 61 per cent. of the world's telephones were in the United States, and that they carried 49,000,000 conversations daily. This meant, of course, to urban populations an incalculable saving of time; and for rural populations it meant, in addition, easy social contacts and a knowledge of market conditions that helped to defend them against exploitation by middlemen.

The electric light, made possible in 1878 by the genius of Edison in America and Swan and Stearns in England, had by the

year 1914 practically supplanted all other methods of illumination, the electric motor and the insulated copper wire had displaced the flying belt in hundreds of manufacturing plants, and there was not an important factory of any kind in the country that did not depend upon electric current for light or power. In many industries electric motors fed by currents from a central power plant constructed to supply many customers had completely displaced the once dominant steam engine; and there was scarcely a community which could not readily be served from convenient hydro-electric plants. New York was drawing 262,300 horse power from Niagara and 48,000 from the St. Lawrence, with another 48,000 clearly available. All told, New York was producing about 713,371 horse power, Washington 300,510, Maine 233,698, Indiana 151,400; and a Federal survey had estimated that the water power available for the nation was good for over 61½ million horse power.

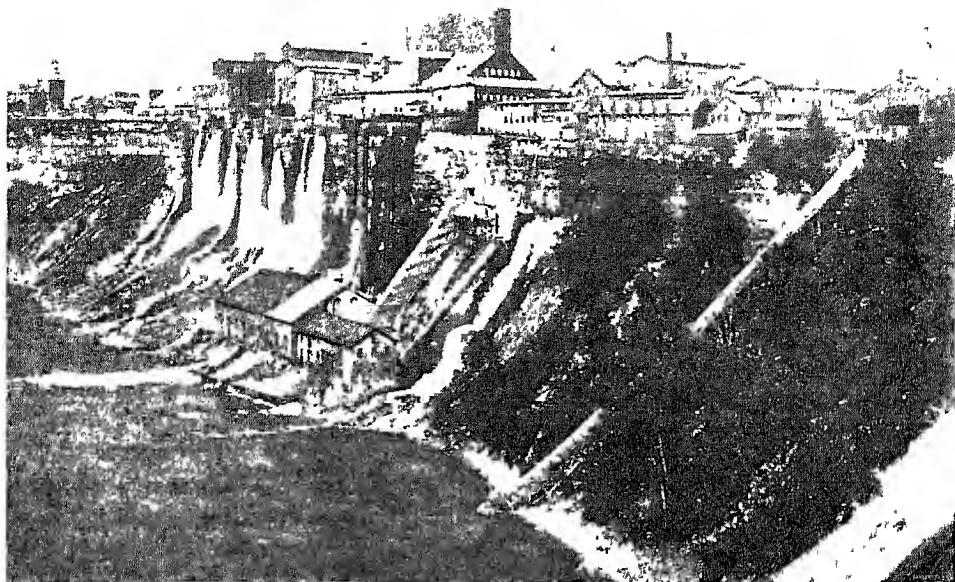
The domesticated duties of the housewife had also been greatly lightened by the near-by source of power. Electric washing machines, vacuum cleaners, sewing machines, cooking stoves, refrigerators and minor household implements were 'stocked' by furnishing houses exactly as were beds



MASS PRODUCTS OF THE DODGE AUTOMOBILE FACTORY

One of the most striking American industrial features of the ten years preceding 1914 was the rapid progress made in motor manufacture. With each year the volume of production increased and America is now the leading car producing nation in the world. A photograph of the Dodge Automobile Factory at Detroit, Michigan, shows a 'sixty-minutes output.'

Photo, E. N. A.



VIEW OF THE MILLING DISTRICT AT NIAGARA FALLS CITY

A considerable proportion of New York's electrical power supply is derived from the Niagara Falls. The buildings seen in this view of Niagara Falls City belong to the Niagara Falls Hydraulic Power and Manufacturing Company, while the Cliff Paper Company's pulp mill at the water's edge is worked by the water which has already been used for power purposes higher up the cliff

Photo, E. V. I.

and dining-room tables; and the farmer drew from distant electric power stations a silent helper that sawed his wood, milked his cows, separated and churned his cream and lighted, with little risk of fire, his barns and outhouses.

Indeed, the uses of applied science had become so common by 1914 that the farmer who stopped his Ford in the road to gaze at the comparatively rare spectacle of an aeroplane thought little of the wonders of recent achievement in his interest in this new, potential method of transportation. Only a decade before, in 1903, Wilbur and Orville Wright, with the machine made possible by electricity and the petroleum condensed fuel, had flown for 59 seconds in a heavier-than-air machine. The next year, Santos Dumont flew 220 metres in 21 seconds; and in 1908 Wilbur Wright flew 56 miles in one hour 31 minutes and 25½ seconds, convincing even the most sceptical that the dream of Icarus had at last come true. But the achievements that waited for the 'ace' in the years soon to come were then beyond the faith even of the credulous; and the prediction that within nineteen

years a young American, Captain Charles A. Lindbergh, would mount his plane, with five sandwiches and a bottle of water as his only supplies, and fly alone to Paris without a stop, in 33½ hours, would then have been dismissed as fanciful.

The modern industrial chemist had come also with a skill more valuable than the transmutation dreams of the medieval alchemist, if realized, could have been. Artificial synthetic dyes, coal-tar medicines and a myriad inventions in aid of manufacturing processes had made the chemist a factor in economic life; while another branch, the development of explosives, had already made him a terrible factor in international contests. Since about 1876 the work of creating chemical explosives had been in progress. Just before the Great War derivatives of cresol had been developed and heavy artillery had been remodelled, the world over, to make use of this most destructive of explosives.

The physicist, with experiments on new elements, uranium, radium and polonium, and the electro-physicist with the mysterious X-ray, had given a new practical meaning to his ancient science. And

photography once a static art, had transmuted and presented itself to the world in a new form, the motion picture, which before the Great War began had already demonstrated to the world its potential twin functions of public entertainer and public instructor.

Thus by 1914 the once isolated American farmer's wife, so long the victim of desperate loneliness, could mount her Ford, or her Buick, when her mechanical aids had enabled her speedily to discharge her once never-ending domestic duties, and repair to a neighbouring cinema, to enjoy a few hours of diversion with Charlie Chaplin, Douglas Fairbanks or Bill Hart, and then enjoy the luxury of dinner in an automatic restaurant, or return home to 'pick up' New York or Philadelphia and listen to a lecture on Japan, or an orchestral concert, on the radio, over half a million of which were installed in American farm houses within ten years after the Great War began.

Not every American rural household enjoyed the equipment just described; but all were to

be found in almost every region of America; for the communities which isolated by natural barriers, had been left outside the stream of progress were few, and were steadily growing fewer.

And the luxury of life for wage workers dwelling in towns and cities was multiplied in proportion; yet the American savings banks reports for 1914 showed that not all the earnings were dissipated upon cars, telephones, radios and moving pictures. The average deposit in savings banks for that year was \$89 per capita; while the total savings bank deposit was \$8,729,000,000. In addition, the American savings deposited in the form of life insurance amounted to over \$500,000,000.

It was a bewildering array of proofs of progress; and it is difficult to believe that the world will ever see its like again. But for the possibilities of the future of applied science no wise man will venture to draw the line. What has been done to draw together the ends of the American nation may yet be done to bring together the ends of all the earth.



LINDBERGH AND THE AEROPLANE IN WHICH HE FLEW THE ATLANTIC
On May 20-21, 1927, Captain Charles A. Lindbergh, a young American air-mail pilot, accomplished his magnificent non-stop flight from New York to Paris in 33½ hours, an achievement which forms a landmark in the history of aviation. This photograph shows his machine, the Spirit of St. Louis, a 220 h.p. monoplane, at Croydon Aerodrome after his arrival there. America accorded her hero a tremendous ovation when he returned to Washington on June 11.

Photos, Keystone View Co.

Tenth Era

THE GREAT WAR AND AFTER

1914-1929

Chronicle XXXII—THE GREAT WAR, 1914-1918

- | | |
|--|--|
| <p>178. Science and War
<i>Maj.-Gen. Sir George Aston,</i>
<i>K.C.B.</i></p> | <p>180. The Rôle of Sea Power in
the War <i>H. W. Wilson</i></p> |
| <p>179. The New Elements in War-
fare <i>Col. J. F. C. Fuller</i></p> | <p>181. Effect of the War on Faith
and Philosophy
<i>C. E. M. Joad</i></p> |

Chronicle XXXIII—AFTERWARDS, 1918-1929

- | | |
|--|---|
| <p>182. The Economic Chaos of
Europe
<i>John Maynard Keynes, C.B.</i></p> | <p>187. The New Philosophy of
Science <i>Hugh Elliot</i></p> |
| <p>183. The New Europe and the
League
<i>H. Wickham Steed</i></p> | <p>188. *Modernism in Literature and
Art <i>Osbert Burdett</i></p> |
| <p>184. The Russia of the Bolsheviks
<i>F. A. Mackenzie</i></p> | <p>189. Public Health: A Record
of Medical Progress
<i>Sir George Newman, K.C.B.,</i>
<i>M.D.</i></p> |
| <p>185. Socialism, Communism &
World Revolution <i>Arthur</i>
<i>Shadwell, M.D., LL.D.</i></p> | <p>190. A Social Survey of the World
To-day <i>Ian D. Colvin</i></p> |
| <p>186. The Economics of Capitalism
<i>J. A. Hobson</i></p> | <p>191. The Philosophy of History
<i>Prof. L. P. Jacks, D.Litt.,</i>
<i>LL.D.</i></p> |

THE Tenth Era of our record is that wherein we are still living, the era inaugurated by the greatest convulsion known in the history of mankind. The Great War raged for four years and a hundred days. It devastated a vast area of Europe beyond recognition; it cost millions of lives on the battlefield; it paralysed productive industry and destroyed sources of production; it shattered political systems; and it wrecked the entire nineteenth-century outlook upon life. It gave to old problems a new aspect, and created new problems for solution, involving complete reconstruction. The grand inclusive problem of reconstruction was that with which the world found itself faced, the problem with which it has been struggling, not we believe without some success, in the ensuing decade. But we can no longer feel even that degree of finality in our judgments with which we pronounce upon the past; there can be no considered consensus. Consequently there can be no uniformity in the pronouncements upon the various aspects of the story of the years since 1914 such as we have been able to maintain heretofore in this work, no 'judgements of history'; the views expressed, often divergent and sometimes it may be even contradictory, are individual views and must be so regarded. The tale is the tale of the beginnings of the grand attempt to lay the foundations of permanent world peace not only between nations but also between classes; to substitute co-operation for rivalry, to dissipate jealousies and distrust. And as yet we are only at the beginning.

TABLE OF DATES FOR CHRONICLE XXXII

1914

- " 22: Japan declares war. Battle of Mantschu. Fall of Nauru. Retreat of British and French left. Russian invasion of East Prussia; successes. Invasion by disaster at Tannenberg. Russian invasion of Galicia.
- Aug. 22: British stand at Lo Catenau.
- " 25: Fall of Longwy; retreat continues. Serbia repulsed; Austrians invade Bosnia.
- Sept. 5: Retreat ends; still covering Paris.
- " 6: French counter-offensive begins; battle of Marne begins; German retirement; and developing (13) into battle of the Aisne. German line stabilized; both lines extend north till the coast is reached.
- Russians capture Lemberg; drive through Galicia.
- Oct. First German invasion of Poland held up on the Vistula.
- " 10: Fall of Antwerp and (16) of Ostend.
- " 19: Belgians at Neuport. The opposing lines extend from Belfort to the sea.
- " 20: Battles of Arras and Ypres begin.
- Nov. 1: Battle of Coronel.

Britain declares war on Turkey.

- " 18: Last German attack at Ypres broken. Second German thrust in Poland held up on the Vistula.

British force lands at head of Persian Gulf.

Dec. 8: Battle of Falkland Islands.

S. African revolts of De Wet and Maritz ended.

Russo-Turkish campaign begins in Caucasus.

1915

Jan.: Third German thrust in Poland held up.

Russian victories in the Caucasus.

Feb.: Fourth German thrust narrowly escapes disaster at Prasmyt.

Turkish attack on Suez Canal shattered.

British naval attack on Dardanelles opens.

Germany announces submarine war on commerce.

March: Russian advance in Galicia; Przemyśl taken.

Failure of naval attack in Dardanelles.

Battle of Neuve Chapelle.

British declare naval blockade of Germany.

April: Russians partly penetrate Carpathian passes.

British victory at Shaiba (Mesopotamia).

Second battle of Ypres. First use of poison gas.

British troops force landing on Gallipoli.

May: Mackensen opens German offensive in Galicia.

Russian line driven back to Przemyśl by the end of the month.

Sinking of the Lusitania.

French advance in front of Arras.

Italy declares war on Austria.

June: Conquest of German South-West Africa.

Fall of Przemyśl and Lemberg (Galicia).

July: German advance in Poland, on Warsaw.

Aug.: Russians abandon Warsaw.

British landing at Suvla Bay; surprise fails.

Mesopotamia: British occupy Kut el-Amara.

Germans take Kovno and Brest Litovsk.

Sept.: Battle of Loos.

German invasion of Russia checked on Vlna-Kovno line.

Oct.: Bulgaria declares war on Serbia and attacks.

French and British troops occupy Salonika.

Nov.: Serbia overrun by Bulgars, Austrians and Germans.

British advance on Bagdad abandoned.

Dec.: British force isolated at Kut.

British evacuate Gallipoli.

1916

Jan.: Russian advance in Caucasus.

Feb.: Russians take Erzerum.

" 21: First German blow at Verdun; French lines driven in; thrust stopped on 26th.

March 2-14: Second drive at Verdun.

Great Britain adopts general conscription.

April 9-12: Third drive at Verdun.

Relieving force fails to reach Kut; surrender.

Rebellion in Ireland fails.

May 3-June 6: Fourth battle of Verdun front.

May: Austrian thrust in the Trentino.

" Battle of Jutland.

June: Last German effort before Verdun fails.

Russians open great offensive in Galicia; Austria abandons Trentino adventure; German and Austrian reinforcements called east.

Arab revolt under Sherif of Hejaz declares Arabian independence.

1916 July: Allied offensive opens in the west; British begin battle of the Somme. Russian successes in Galicia.

Aug.: Rumanya enters the war and drives through Carpathian passes into Transylvania. Russian progress in Galicia checked.

Italians take Gorizia.

Continued fighting; and gradual gain of ground by Allies on the Somme.

Sept.: Rumanians pushed back by German counter-offensive. Mackensen invades the Dobruja.

First appearance of 'tanks'; considerable advance of Allies on the Somme front.

Venizelos set up provisional Salonika government.

Oct.: Allied push continues, very gradual advance on western front. German invasion of Rumania advances, but is stoutly resisted.

Nov.: Western push suspended by weather conditions; Mackensen forces Danube, compelling Rumanian retreat.

Serbs and French capture Monastir.

Dec.: Fall of Bukarest; Rumanians confined to Moldavia.

1917

Jan.: Allies reject German peace overtures.

Feb.: Turks cleared from Kut.

Renewal of the Allied push in the west.

March: British in Bagdad. Advance on Palestine from Egypt held up at Gaza.

Western front approaches St. Quentin.

Constitutional revolution in Russia; Nicholas II abdicates (15); provisional government.

April: United States declare war on Germany.

Vimy Ridge stormed; French gain footing on Chemin des Dames, but fail to master it.

May: Continuous development of submarine campaign.

Russian army undermined by Bolshevik teaching.

June: Messines ridge blown up; partial British advance.

Constantine abd.; Venizelist government.

July: Brusilov with loyal troops opens desperate offensive in Galicia; which is wrecked by disloyal troops. Russia ceases to count.

Aug.: Desperate Rumanian stand against Mackensen.

Obstinate but futile campaign in the mud of Flanders.

French recover ground before Verdun.

Sept.: German advance in Baltic provinces.

Oct.: French master Chemin des Dames.

Germans shatter Italian centre at Caporetto; Italian retreat, pursued by Austrians, turns to bay on the Piave.

British push to Passchendaele.

Nov.: Lenin overthrows Kerensky government; Bolshevik domination in Russia.

Surprise British spring at Cambrai; countered by heavy German reinforcements.

Allenby captures Gaza.

Dec.: Allenby occupies Jerusalem.

1918

Jan.-Feb.: Preparations for decisive struggle.

March: Russo-German treaty of Brest Litovsk.

German drive against British right on Somme.

British stand on the Ancre, 'back to the wall.'

Foch appointed commander of Allied armies.

April: German thrust towards coast held up.

American troops arriving.

Zeebrugge wholly and Ostend partially sealed.

May: German drive against French left, to Marne.

American troops in fighting line.

June: Failure of last Austrian offensive on Piave.

July 15: Final German thrust across the Marne.

" 18: Foch opens victory offensive.

German withdrawal begins.

Aug. 9: British join offensive on French left.

Additional offensives develop continuously to left and right.

Sept. British penetrate Hindenburg line; Germans evacuate St. Mihiel, taken by Americans.

" 15: Allied offensive against Bulgars.

30: Armistice dictated to Bulgars.

" 19-21: Battle of Megiddo; Syria invaded.

Oct.: Cambrai taken; Lille and Douai evacuated.

" 23: Rout of Austrians on Italian front.

Decisive defeat and surrender of Turkish army in Mesopotamia. 30: Armistice dictated.

Nov. 3: Austrians sue for armistice. Battle of Sambre. 7: Americans enter Sedan. 9: flight of Kaiser; German provisional government.

" 11: Mons entered; Armistice.

THE GREAT WAR: 1914-1918

THE Central powers entered upon the Great War with a confident expectation of rapid and decisive victory, for which there was no small warrant apart from certain miscalculations. In the first place, the presumption was that at least in the initial stages they would have to deal with only two powers that counted, France and Russia, one on the west and the other on the east, while on the north and on the south they were secure. Holding the interior lines, and provided with a network of strategic railways, they could mass troops on either front and transfer them from one to the other in overwhelming force as circumstances might demand; whereas the French and the Russians were each of them pinned to a single front.

In the second place their own military machine—or that of the Germans, at least—was in perfect working order; those of France and Russia were not. It was barely ten years since the weakness of the Russian system had been revealed in the Japanese war, and there had been very recent revelations of defects in the French military administration. It was almost certain that Russia would not be able to bring her full power into play for some months, which would give Germany time to clear France off the board.

It would give time because one section of her frontier, where it marched with Belgium, was very nearly defenceless, so that it could be swiftly penetrated by a march through Belgium, whose neutrality, guaranteed by treaty, had been faithfully observed in the war of 1870 by both sides—but while several powers, including Prussia, were then pledged to observe that neutrality, none were pledged to oppose its violation in arms. The invasion of France through Belgium was an integral though unavowed part of the German plan.

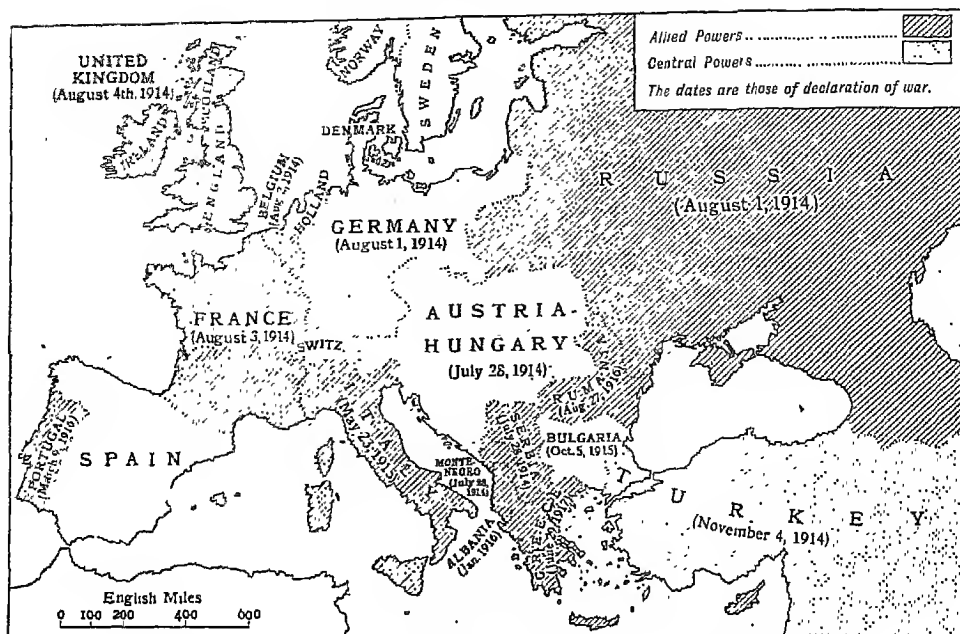
The German staff, however, had taken into consideration the possibility that Great Britain might, sooner or later, join

with France and Russia. It was in itself improbable, since in the first place there was no treaty obligation binding her to give armed support (as there was between Russia and France) to the other members of the Entente; secondly, there was a Liberal government in power, and Liberal governments were notoriously averse from war; thirdly, the critical position in Ireland would greatly strengthen the peace party. And if, after all, the war party should predominate, England's military power was all but negligible; the German navy believed itself able to neutralise the naval power which a vociferous section of the British press had long been declaring to be totally inadequate for its task; and rebellion in Ireland, in South Africa and in India would tie her hands.

Finally, the German government was assured that in the east the Central powers would be supported by Turkey, while it was extremely unlikely that any of the other Balkan states would come to the aid of Serbia; and it was highly improbable that Italy would desert the Triple Alliance, though she might deny any obligation to give it armed support. It was not unreasonable, therefore, to anticipate that the war would be won for Germany before Christmas, possibly in the early autumn.

Opposed Views on War Guilt

THE German government had a solid Germany behind it; a Germany convinced that she was embarking on a war imposed upon herself in self-defence by the machinations of enemies who were awaiting their opportunity to crush her. It is not easy to credit the imperial government itself with a similar belief, or that of Austria. To the Entente powers it appeared quite simply that German militarism had been consistently planning for years to force on them at the moment of its own selection a war that should lay Europe prostrate before it, and should



HOW EUROPE WAS DIVIDED AGAINST ITSELF IN THE GREAT WAR

This map of the belligerent European countries in the Great War of 1914-18 shows that, in spite of the imposing numerical array of nations actually or nominally at war with the Central powers, the territorial discrepancy, especially at the beginning, was inconsiderable. Furthermore, Germany held what are known as the 'interior lines,' and could transfer forces from front to front by a system of strategic railways. Hence she was not unjustified in counting on a speedy victory.

achieve for Germany what Napoleon I had attempted to achieve for himself.

The flaw in the German plan lay in its miscalculation of factors which were not obvious. It was reckoned that the French would fight brilliantly to win but would go to pieces in the face of defeat; whereas when they were defeated they fought on as tenaciously as ever. It was reckoned that Russia would only come slowly into action, and would be fully engaged in meeting the Austrian offensive; whereas before a month was over she was delivering an offensive on the east German front which, disastrously though it ended for her, was an invaluable diversion for her allies in the west. It was reckoned that Belgium, seeing the hopelessness of resistance, would give the German troops a free passage; resistance was hopeless, but the free passage was not given and, though Belgium paid the penalty for her heroic sacrifice, she impeded the rush while the Allies were reinforcing that front. Most fatal, however, was the miscalculation of the part to be played by the British.

DOWN to the last moment the British cabinet was divided, one section of it being convinced that if the European war could not be averted, honour and interest alike demanded British intervention; the other that there was no obligation of honour and that British interests would be best served by present neutrality. At the last moment the ranks were closed, not only in the cabinet but from end to end of the country, by the German invasion of Belgium. It was a breach of faith of a kind which, if it were tolerated, would render all treaties futile. Without that, Great Britain might and probably would have entered the war, but only in the face of a strong opposition at home from the Liberal and Labour benches and from the Irish; by it Great Britain was rendered practically solid, and Ireland swung into line with Great Britain. Nor was it long before it was abundantly manifest that the Dominions of the Empire would play their part no less zealously, that in South Africa there remained only a fractional

The Great War

body of Boer intransigents, and that Indian loyalty was assured.

Nor was this all; for the 'decadent' fleet, providentially concentrated in home waters, had already been quietly stationed precisely where it was most wanted, so that from the first day of the war no German squadron or surface ship was able to appear upon the North Sea for any purpose except a hasty raid on the British coast, or an engagement with a British squadron from which it had to extricate itself and seek security in its own mine-defended ports before it should be annihilated by the arrival of an overwhelming naval force. Moreover, from the first week of the war this control of the seas outside the Dardanelles and the Baltic enabled the British to carry across the Channel, not indeed without risk but without appreciable loss, troops, munitions and other

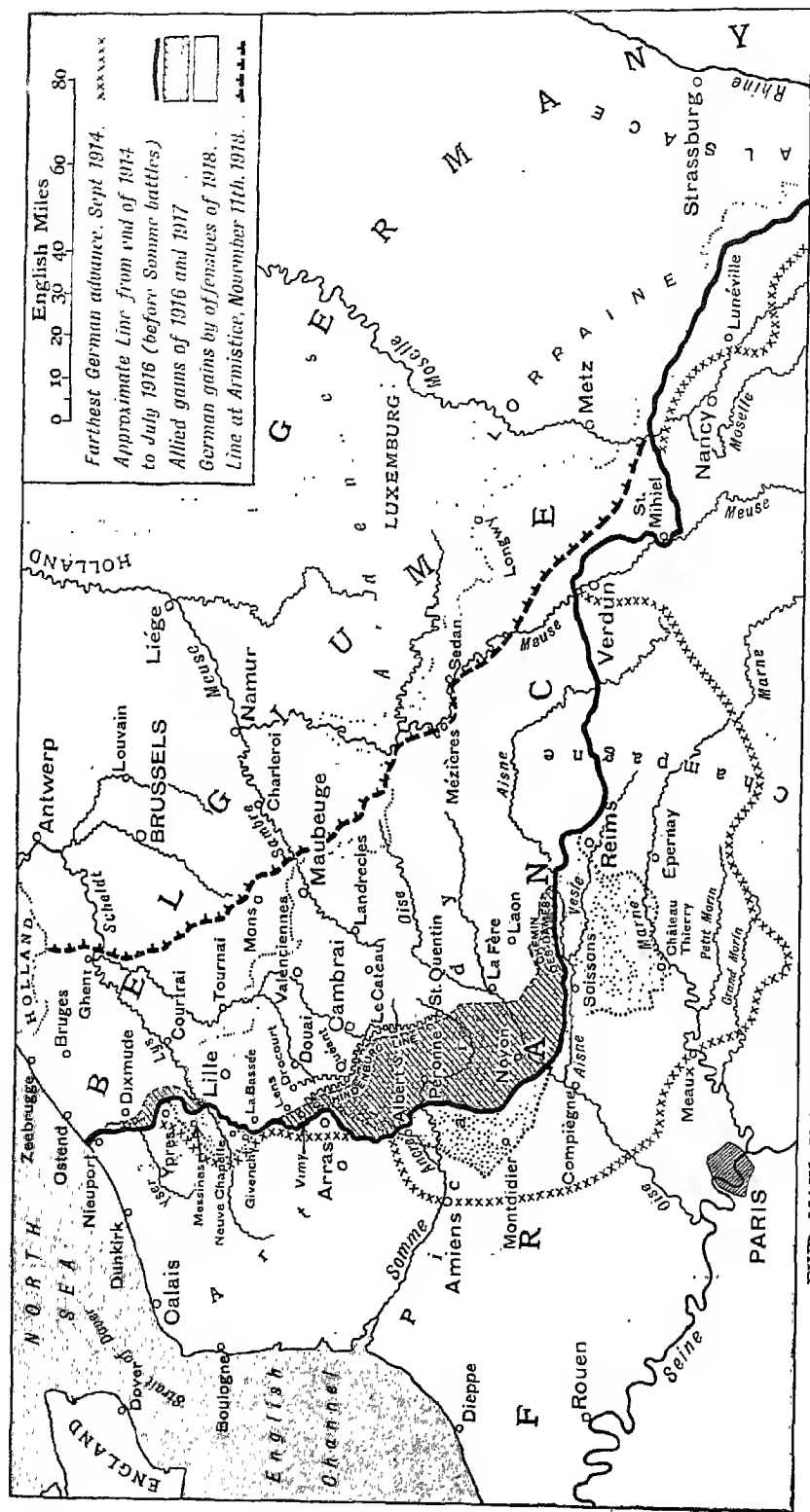
accessories to military operations, to the full extent of the country's capacity for providing them; while it established at headquarters a complete confidence that dreams of a German invasion were chimerical, so that practically all the fully trained fighting force was available to take its place in the French fighting line.

That force was numerically insignificant and was grievously lacking in the heavy-gun equipment required for the campaigning methods developed by the Germans; but in other respects it was astonishingly efficient, as was the organization which placed it in the field on the other side of the Channel within three weeks of the declaration of war. Great Britain even now for a time persistently declined to envisage the compulsory training and service which the experts had warned her would be needed in a



ARRIVAL OF SIR JOHN FRENCH AND HIS STAFF AT BOULOGNE

The moment it became evident that British intervention in the war was inevitable Field Marshal Sir John French was selected for the command of the British Expeditionary Force to be despatched. On August 14, 1914, he landed with his staff at Boulogne—he can be identified behind the officer in the centre of this photograph of the occasion—and went to the French army headquarters. Next day he visited Paris, and on Monday, August 17, reached his own headquarters at Le Cateau.



The Great War

European conflict. But even as matters stood the 'expeditionary force' was twice the size of any British force which had taken part in any previous war; and the call to arms was answered by multitudes of volunteers, who were ready and fit to take the field in less than half the time that had been looked upon by the most optimistic as the minimum for producing even a moderate efficiency. Among these must be reckoned the recently organized and partly trained Territorial forces, whose terms of enrolment had exempted them from the service overseas for which almost without exception they now volunteered.

THE neutrality of the small state of Luxembourg, as well as that of Belgium, was guaranteed, and was ignored to maintain the continuity of the German line. The Franco-German frontier was protected by a powerful line of fortresses, from Belfort at the gap between the Vosges and

Switzerland (whose neutrality was not to be challenged) to Longwy on the Belgium-Luxembourg frontier, by way of Nancy and Verdun. It was on this line that the attack was anticipated, and the French were in strength. North of this in Belgium lay the Ardennes, not a good country through which to deliver an attack in force, though the French line was of course tenuous. The real German attack (see page 4798) therefore was to be delivered across the Meuse on the weak line between Lille and Maubeuge, turning the French left and clearing the way for a march on Paris, and taking the French army in rear; the Allies being quite unconscious of the concentration upon this line.

The plan would almost certainly have been carried out successfully but for the unexpected resistance of Belgium, which compelled the Germans to account for Liège and Namur before they could cross the French border. No one outside



FORT LONCIN, LIÈGE, SHATTERED BY GERMAN SIEGE GUNS

Brialmont designed and superintended the Belgian defences of the valley of the Meuse, completing the fortification of Antwerp, Liège and Namur in 1884-86. The principal feature was the cupola fort, carrying guns in domed turrets. The method is open to criticism on the grounds that it cannot be concealed, provides a fixed target, and is liable to have its machinery put out of gear; a lesson enforced by this view of a fort after the German heavy guns had dealt with it on August 15, 1914.

- Photo, Imperial War Museum



GENERAL SHAW AND HIS STAFF AFTER THE BATTLE OF MONS

The first encounter between the British and German infantry occurred when the latter made their sudden attack on the British position at Mons after heavy fighting, evacuation and retreat proved for the British the only alternative to envelopment. A photograph, taken while the Germans were actually firing into and over the barricade at the top of this street at Frameries, shows General Shaw discussing operations with his staff after the battle.

Germany had counted on the destructive effects of the German long-distance guns and high explosives upon the best of fortifications constructed on the old lines, yet, though Liège itself fell on August 7, its satellite fortresses held the Germans up for another week. While the main Belgian forces were being pushed north upon Antwerp the main German column advanced on Namur, though it was checked on the way, the bombardment opened on the 20th; Namur fell on the 23rd, though satellite forts held out for three days more. All the defences had been blown to pieces, and of the Belgian southern army nothing was left. But by this time it was three weeks since the declaration of war, and the British army corps were already, on the 22nd, entrenching themselves on the French left, west and north-west of Charleroi through Mons. The Belgian resistance to the rush for turning the French flank had been crushed; but it had been maintained just long enough to enable a new obstacle, the British expeditionary force, to take its place.

To overwhelm or envelop that force was now the immediate objective of the

German command on the German right. While the British were entrenching themselves the Germans were uncovering their right by thrusting the French on the Ardennes front back over the Meuse and forcing the retirement of their extreme flank on the Somme, so that on the 23rd Von Kluck, with four army corps, was able to make a frontal attack on the whole British line, at the same time threatening to turn both its flanks. The frontal attack was actually held up, though Mons had to be evacuated, and it had become clear that retreat was the only alternative to envelopment. Next day (24th), therefore, the whole line fell back to a line running west from Maubeuge, fighting heavy but effective rearguard actions both on its right and left, and again on the 25th to Le Cateau, where a desperate stand was made on the 26th which gave pause to the German onslaught, so that on the 28th the British were on a line from La Fère to Noyon. But for a second week the retreat was continued in conformity with the French retirement on the right, past the Marne, till the British force lay behind the Grand

The Great War

Morn, with its left extended by a new French force covering Paris

For the armies on the Belgian front from Longwy to Chaileroi, though not definitely pierced, had been swung back, hinging on Longwy, and when Longwy fell on the 28th, Verdun became the hinge, the line falling back behind the Aisne and then the Marne until it lay from Paris on the west to the salient including Verdun on the east, from which point it remained unshaken south eastward through Nancy to Belfort. The failure of the Germans either to outflank the left or to pierce the centre—though they had come very near to doing both—had saved the situation. The momentum of the attack was exhausted, and that fact was very possibly due to the strain on the eastern front imposed by the unexpected Russian diversion in East Prussia.

Now, however, at the end of the first month the French line was being reinforced by reserves. At the moment when Von Kluck was almost at the gates of

Paris, the immediate fall of which was anticipated in some quarters, the French opened the counter-offensive (September 6) on the Marne. The result was that now it was the Germans who had to swing back on their hinge before Verdun, the envelopment of their right flank being threatened by the Anglo-French left, as well as the penetration of their centre. (See further in pages 4797-98.)

On the 9th began the retreat of the German right, while Foch was delivering a smashing attack on the weakened right centre. On the 10th the whole line was in retreat, but it was an organized retreat covered by stubbornly fought rearguard actions. On the 13th the retirement from the Marne developed into the battle of the Aisne, which resulted immediately in the stabilising of the German line westward from the Verdun salient across the front of Reims and Soissons, leaving them still in occupation of two-thirds of the French territory over which they had advanced. This was followed by a continuous



MEN OF THE BRITISH NAVAL EXPEDITION SENT TO RELIEVE ANTWERP

The German thrust southward towards Paris had left the Belgian forces isolated in the north of their country where they gradually concentrated on Antwerp. The condition of the town was already precarious—the outer fortifications and an inner fort having fallen—when on October 4 the British Naval Division and a brigade of Marines were sent in by Winston Churchill for strategic reasons that have been questioned. This photograph shows a trench being dug at Vieux Dieu.

Photo, Imperial War Museum



GENERAL VON KLUCK

Alexander von Kluck, who commanded the German forces at the battle of the Marne, was born in 1846, and entered the Prussian army in 1865. He served in the Austro-Prussian and Franco-Prussian wars and retired in 1916.

Photo, Record Press

struggle for the extension of both lines northward, past the front of Amiens and Arras, primarily for the envelopment of the opposing flank—an end attained by neither—till both reached the North Sea, so that from Ostend and Dunkirk to Belfort each presented an unbroken front with no flank to be turned, while the

occupation of Ostend by the Germans gave them the whole Belgian coast line.

The hope of the Allies that they would carry their line up to Antwerp was foiled. The Belgian forces, penned in the north, had continued to hamper the German invasion of France by raids for which they were mercilessly penalised, and the doom of Antwerp was sealed. With the help of a gallant but half-trained British force and British ships the Belgian troops were enabled to evacuate Antwerp before its fall on October 10, and to take up their position on the extreme left of the Allies, their front soon protected by ground submerged by the old device of opening the dykes, while the British held the famous Ypres salient.

In the course of the extending movement there was much hard fighting. Antwerp had already fallen before the British left was in front of La Bassée, from which it failed to expel the Germans, who occupied Lille next day. On October 16 the Germans were in Ostend, and on the 19th the Allied line had been extended by French and Belgians up to Nieuport, covered from the sea by the guns of British monitors.

The last phase of this struggle was the first battle of Ypres and the battle of Arras. The German object in the latter was to snap the connexion between the French at Arras and the British to the



GERMAN ARTILLERY IN THE COASTWISE PURSUIT OF THE BELGIAN ARMY

On October 9 Antwerp was evacuated, and, apart from 18,000 who escaped into Holland, the Belgian army retreated down the coast, eventually to form the left wing of the Allied forces which had by now worked their way almost to the sea in an attempt to outflank the German right. The final move by which the Germans countered this attempt was their pursuit of the Belgians over the dunes, which by the 19th had given them the whole of the Belgian coast to the Yser.

The Great War

north of them. It began on the 20th, but though Arras was smashed by the German bombardment the French line held, while at the end of a week's fighting the Germans still held their position on the almost impregnable Vimy ridge. The battle for Ypres began on the 20th, its crisis came on the 31st when the Germans, making their greatest effort, were nevertheless repulsed at the end of a day during which the fray had rocked furiously backwards and forwards. In the next three weeks the assaults were thrice renewed and thrice repulsed, in spite of greatly superior numbers and artillery, and the stabilising of the two opposing lines from the North Sea to the Swiss frontier was completed. Until 1918 there was no advance of either line for more than a few miles upon a small sector.

On the western front, then, the first round of the great conflict was over before the end of November. The Central powers had delivered a very heavy blow, and remained in possession of a very substantial area of enemy territory, while their own soil was intact; but their attempt to make that blow decisive had definitely failed. On the eastern front they had been less successful.

Russian Advance in East Prussia

ACCORDING to plan, Germany was to concentrate upon her own great offensive in the west, while holding in the east her own strongly protected frontier with its elaborate support of strategic railways. Russia, it was assumed, would not be ready to move for some time to come.

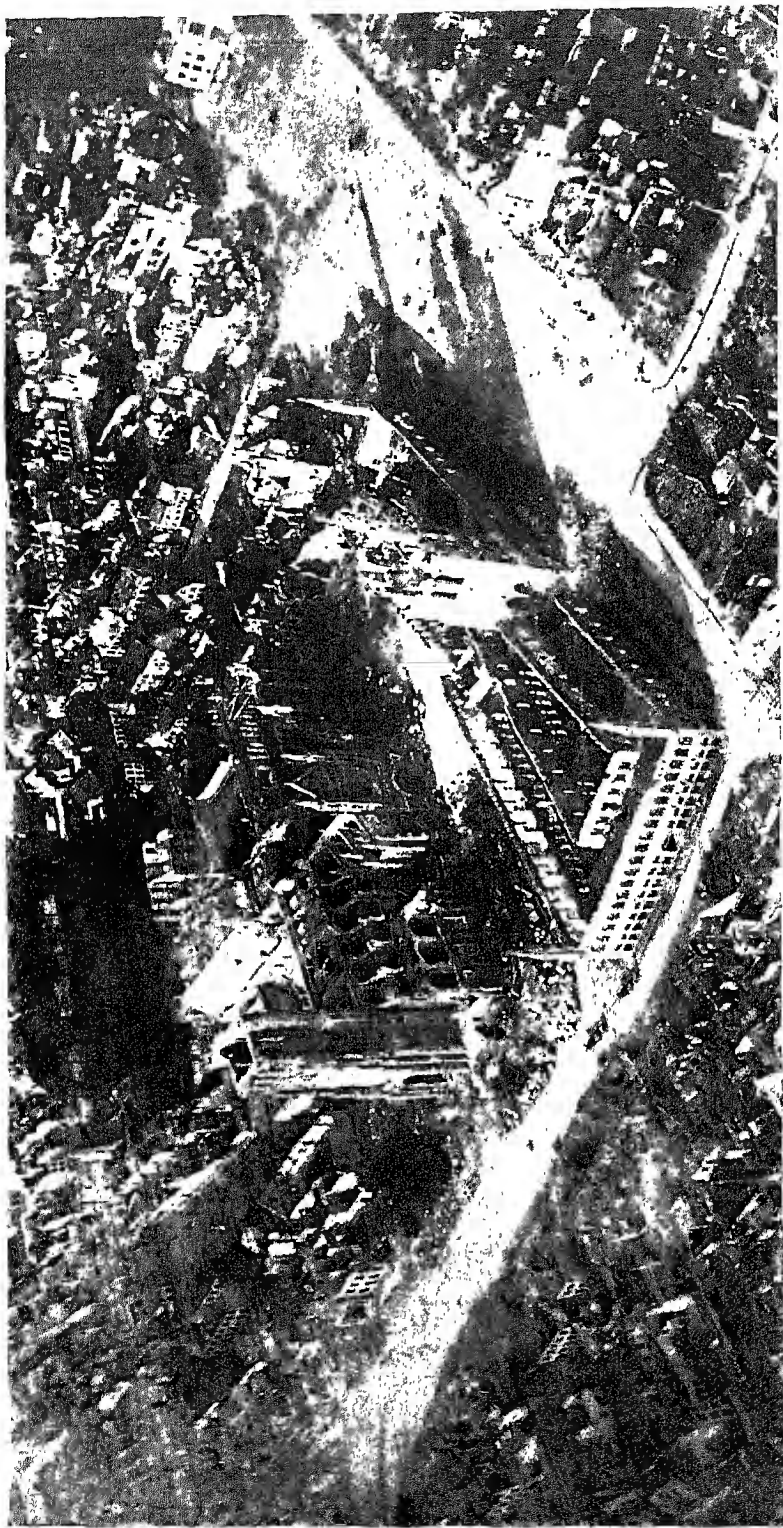
Russian Poland formed a great salient with East Prussia on the north, Prussian Poland on the west and Austrian Poland or Galicia on the south. The whole was practically without frontier defence. Austria then was to invade Poland from Galicia, and at the same time to put Serbia out of action. But, as it happened, Russia had much stronger forces ready than was supposed, and some commanders of high ability; whereas, at the moment, the German commander in East Prussia was incompetent and the Austrian command was extremely defective.

Consequently, while the Germans were trampling through Belgium the Russian northern army poured over the eastern borders of East Prussia, flinging the Germans back in rout to Königsberg, and creating something like a panic in Berlin. The German command was promptly transferred to Hindenburg, an old general, then of no great reputation, but one who knew the country thoroughly. The Russian left pushed forward into the Masurian lakes, losing touch with the centre, and there, in the last days of August, when the Anglo-French line was being rolled back towards Paris, was all but annihilated by Hindenburg, in the tremendous disaster of Tannenberg. East Prussia was saved, and the Russian main army had to fall back. It can hardly be doubted, however, that the critical moment in the east reacted upon the force of the German advance in the west.

Serbians in Bosnia and Russians in Galicia

MEANWHILE the Serbians had dealt faithfully with the Austrian punitive expedition, ejecting it from Serbia before the end of August, and proceeding to the invasion of Bosnia; here, however, they made no material advance, though there was some heavy fighting in September. But the Austrians had to be content with holding them up, since their own offensive in southern Poland was being more than cancelled by an unexpected Russian offensive in Galicia. Before the end of August the Russian armies were threatening its capital, Lemberg; at the beginning of September they inflicted on the Austrians a rout only less overwhelming than the rout of Tannenberg, occupied Lemberg, almost cleared Poland of the invading Austrian force by the middle of the month, and were soon investing the powerful fortress of Przemyśl, on the way to Cracow.

Hindenburg, on the other hand, after Tannenberg, which had established his reputation, attempted a counter-invasion not of Poland but of Russia from East Prussia, but was completely held up on the Niemen, and forced to retire across the Prussian frontier before the end of September. Apart from the actual check



SKELETON BUILDINGS OF THE BEAUTIFUL CATHEDRAL CITY OF YPRES AFTER THE GERMAN BOMBARDMENT OF 1915

While the Belgians, with the aid of British monitors, were holding up the German advance in the flooded region of the Yser, the British on their right were engaged in a fierce conflict, centred round Ypres but stretching south to La Bassée, whose result was to stabilise the line in Flanders. The town itself was not seriously affected until the second battle of Ypres, in April, 1915; the civil population were then evacuated and the town virtually destroyed. The ruins of the famous Cloth Hall appear almost in the centre of this photograph with the Cathedral of S. Martin beyond. Compare page 308o.

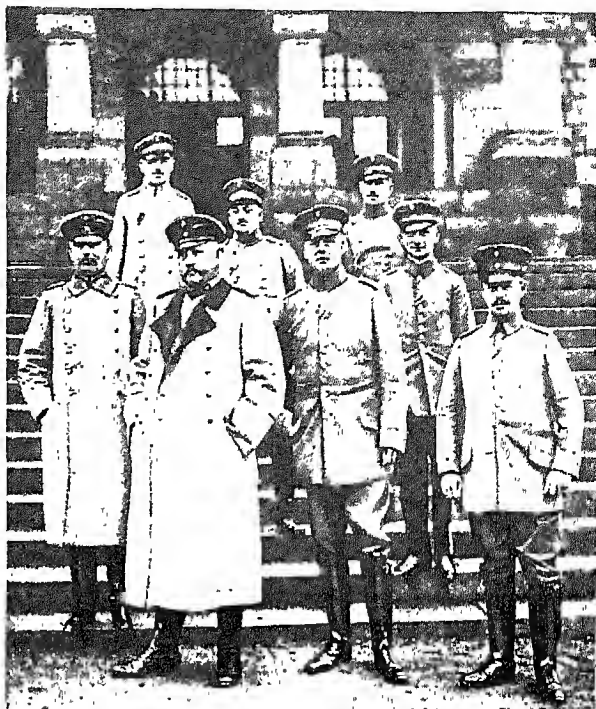
The Great War

he had received, it had become imperative to relieve the pressure in the south. The fall of Cracow would be an incitement to all the northern Slavs to revolt against their Austrian masters, would threaten to turn the flank of Hungary whose Galician front was protected by the Carpathians, and might have on the Balkan states effects which it was not possible to calculate; and already Russian troops were penetrating the Carpathian passes.

Early in October, then, Hindenburg had organized the invasion of West Poland, with Warsaw as his objective, expecting a Russian retirement. But the Russians prepared their stand along the line of the Vistula, and the Germans, when they tried to cross it, were not only held up in the centre, but found both their flanks threatened and were rolled back all along the line. In the first week of November Poland had been practically evacuated, and the fall of Cracow seemed imminent. But

by this time the German command was satisfied that its own line in the west was established impregnably for defence from the North Sea to Switzerland, and had learnt in front of Ypres that the prospect of creating a flank in the Allied line was remote; therefore an intensive onslaught on the eastern front was in preparation. Cracow did not fall.

ABOUT the same time the finishing touches were given to the British command of the sea. The Central powers had no battle fleet in the Mediterranean, where the French were in charge; their main fleet was shut up in the North Sea ports, sheltered by their mine fields, whence only an occasional cruiser could emerge to make a dash for the English east coast, shell one or two watering places and race back to its own port before it could be overtaken by pursuers; though



VON HINDENBURG ON THE EASTERN FRONT

His outstanding military abilities and victories over the Russians early raised Paul von Hindenburg to the rank of German generalissimo on the eastern front, where he is here seen at headquarters with his staff. In 1916 he received the appointment of chief of the general staff of the field army.

Photo, Central News

loose mines and submarines made the movement of ships in the North Sea somewhat precarious. At the beginning of the war, however, there was a German squadron in Chinese waters, as well as some cruisers in the Mediterranean. The last escaped to the nominally neutral port of Constantinople, to help the Turks in their preparation for dropping the mask.

On the other hand, Japan took her place with the Allies and declared war on Germany in August, so that Von Spee's squadron, which could not hope to engage the Japanese fleet successfully, after detaching the *Königsberg* and the *Emden* retired from Tsingtau (the port of the leased territory of Kiao-chau) across the Pacific, to experience the success and final disaster narrated in pages 483-40. The Japanese intervention was followed by the fall of Tsingtau, and the Japanese fleet rendered further service in patrolling



ABOARD THE GOEBEN

At the beginning of the war French command of the Mediterranean drove the few German cruisers into Turkish waters; among them the *Goeben*, aboard which the Kaiser and Enver Pasha are shown at Constantinople in 1918.

Photo, Abrahams, Desconfort

the Pacific and convoying Australian and Indian troops to the West, the latter taking their place temporarily in the fighting line immediately on their arrival.

The Porte, while proclaiming its neutrality, had made its secret treaty with the Central powers at the moment of the war's outbreak. The alliance was an integral part of the scheme; it was designed to place western Asia under German control, to turn the Russian flank and to eject the British from Egypt and the Suez Canal. Turkey openly entered the war at the beginning of November.

THE last heavy attack before Ypres was repulsed on November 11. A week later Hindenburg was renewing the assault on the Russian front in West Poland, and Mackensen was driving its centre back, only to find that his drive forward promised to result in his own envelopment; and it was only with great difficulty and heavy loss that he extricated himself from his perilous position. The Russian wings, however, fell back on a more secure line;

the threat to Cracow was relieved by the threat to Warsaw. Another German drive on the centre in January (1915) was held up, renewed in February and again held up, while the Russians were once more threatening East Prussia. The Germans concentrated on the northern flank; the experiences of November were almost repeated at the end of February; the thrusting columns were first stayed and then almost encircled at Prasnytz, only escaping after a desperate struggle. The onslaughts on the Russian centre and right had both failed.

Meanwhile the Austrians were endeavouring to thrust the Russians back from the Carpathian passes and to recover the lost ground in Galicia. Though they met with some successes, Przemyśl fell before the end of March. Its fall enabled the Russians to renew the attack on the Carpathian passes; by the middle of April they had made considerable progress. But by this time a fresh drain on their resources and an additional field of operations in the Caucasian region had been forced upon them by Turkey's entry into the war; and the Germans had resolved to take the saving of the situation on the Carpathian front into their own hands. The attacks in Poland had indeed saved Cracow, but had accomplished little or nothing more. Now they were concentrating—though the design was not understood elsewhere—on the Russian flank in Galicia. Mackensen, not the unsuccessful Austrian general, was to be in charge.

Fighting in the Colonial Areas

SINCE the beginning of the lull on the western front neither side had down to this point made definite progress in spite of the heavy fighting in the east. In the colonial areas, the British and Japanese command of the seas made it an easy matter to eject the Germans not only, as we have seen, from China, but from the islands they had occupied in the South Seas, and from their colonies on the northerly coast lands of West Africa. Except where such conquests were a preventive against the stirring up of native hostility, they were of no serious importance, as had been repeatedly demonstrated

The Great War

in the Anglo-French and Spanish maritime wars for over two centuries past.

German West Africa in the south and German East Africa were another matter, because of their bearing upon the Anglo-Dutch Union of South Africa. Here the eviction of the Germans was postponed owing to the trouble caused by the remnant of Boer intransigents within the Union. The revolts, however, headed by Maritz and De Wet, were put down before the end of 1914 by Botha and Smuts—who with De Wet himself had been the most distinguished and indomitable of the Boer leaders in their war with the British; while in East Africa the small balance of gains was rather in favour of the Germans. In the spring, however, Botha and Smuts were conducting a skilful campaign which cleared German South-West Africa in the course of the summer.

ON the other hand, the entry of the Turks was about to have momentous results. To begin with, it inaugurated a winter campaign against Russia in the Caucæus region where the Turkish frontier marched with that of Russia and with a corner of Persia which had already been for some time occupied by both Russian and Turkish troops. The Turks in Asia, not having as in Europe the benefits of German military directorship, were de-

feated in their offensive; but the Russians, though they secured Tabriz, failed to reach Erzerum, while the diversion reacted upon their strength in Poland and Galicia. At the same time, however, the Turks were directly challenging the British by attacking the Suez Canal from Palestine. The attacks were repulsed; but there was a further effect. Great Britain, with the assent of France and Russia, converted the occupation of Cyprus into annexation, and the occupation of Egypt—where the khedive threw in his lot with his Turkish suzerain—into a formal protectorate.

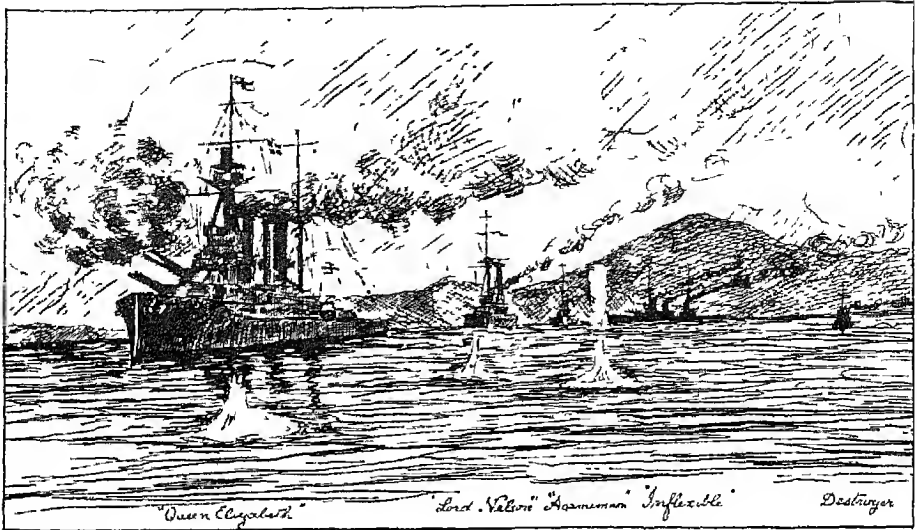
Moreover, it gave the British warrant for a counter-attack upon the Turkish flank in Mesopotamia, which offered a field of action for the Indian army better than the Belgian front, and for the bold design of seizing the Dardanelles. Granting the possibility of success, the advantages of this scheme were obvious. The capture of the Dardanelles and the fall of Constantinople would inevitably have placed the whole of the Balkan peoples at the disposal of the Allies, bringing Italy also in on their side, and Russia would no longer have been isolated. Even in her isolation it appeared in the winter and the early spring that she was at least able to hold her own against the utmost efforts of the Central powers—though the appearance was illusory. If she were reinforced from



HEADQUARTERS OF SECOND AUSTRALIAN DIVISION GUARDING THE SUEZ CANAL

Turkey's entry into the war on the side of Germany was the result of a scheme to divert the attention of the Allies to fresh frontiers and to lessen their concentration in Europe. Defence of the Egyptian frontier and the Suez Canal necessitated the speedy despatch of troops to the East. Among the contingents sent to this area of the war were Australian troops, who built the floating bridge over the canal that this photograph shows being opened to allow a vessel to pass.

Photo, Australian Commonwealth



ALLIED NAVAL ATTACK ON THE DARDANELLES

This sketch, made by a naval officer during operations in the Dardanelles in March, 1915, shows the British battleships Queen Elizabeth, Lord Nelson, Agamemnon and Inflexible opening up a long-range bombardment in the general attack on the Narrows on the 18th. This attempt to force the Narrows ended in failure and heavy losses for the Allies, the Inflexible suffering serious damage from collision with a floating mine. See also the panoramic plan in page 4845.

the Balkans, there would be little chance for Hungary and Austria, and Germany would be involved in a desperate struggle for life on both fronts.

The Allies, under a mistaken impression of the German strength on the western front, had designed a great offensive there in the spring. Concentration upon this object forbade the diversion of troops to the eastern front. In February the navy, with no army in support, though aid from Greece was in contemplation, began its attack on the Dardanelles, cleared the entrance, and was then, in March, brought up short by the Narrows, which were under the concentrated fire of land batteries in every direction, as well as torpedoes from the shore, while the waters were sown with floating mines. French and British battleships were sunk, nothing was achieved, and in the coming weeks the Turks, under German leadership, were busily engaged in making their land defences impregnable.

The Mesopotamian expedition from India reached the head of the Persian Gulf in November, captured Basra and Kurna, inflicted a heavy defeat on the Turks at Shaiba in April, and did not continue its advance until June.

And, in the meanwhile, the Germans, who had learnt the futility of attempting, for the time at least, to challenge battles with British naval squadrons, inaugurated the submarine campaign described in page 4853; while the British replied by declaring a blockade of all German ports, affirming the largest rights of search and detaining all goods destined for Germany, whether contraband or not. As in the case of Napoleon's Berlin Decrees and the British Orders in Council, the Americans for the time resented the British more than the German action, because the one interfered immediately and effectively with their commerce, while the other did not take unmistakable effect until a later stage, in spite of the terrible object lesson given by the sinking of the passenger liner Lusitania in May, with more than a thousand non-combatants on board.

Allied Offensives of 1915

DURING the winter and spring fighting was continuous from end to end of the western front—murderous, costly, futile. Multitudes of volunteers from home or from overseas were training in England to pile up new armies, and to take their place in the fighting line as

The Great War

soon as they were trained and equipped; while the Germans were perfecting the trench system which was to hold up any possible onslaught. Then at the end of March the Allies began what was proclaimed as their grand offensive.

But the grand offensive was local and inadequately co-ordinated. The British began in the north with a thrust towards Lille at Neuve Chapelle, preceded by an intensive bombardment; it carried some three miles of front about a mile forward, with casualties on both sides—probably about equal—estimated as exceeding 25,000. The French made some progress in the south on both sides of the German salient at St. Mihiel between Verdun and Nancy; but, in fact, they hardly shook the German line, and in April the Germans retorted with an attack on Ypres, where they effected a temporary breach in the Franco-British line by the use of poison gas, which had been unanimously repudiated as a permissible instrument of war at the Hague Conference. The breach, however, was made good, before the Germans could thrust through, by the newly arrived Canadians, and Ypres was held, though the defensive line was shortened. In May the French a little farther south hurled themselves against

the Vimy ridge, and made an advance more considerable than that of the British at Neuve Chapelle; but the ridge proved impregnable.

The Dardanelles Campaign

THE futility of a purely naval attack on the Dardanelles had been demonstrated in March; at the end of April England began her military effort, though by this time the land defences had been scientifically strengthened. The real marvel of that glorious disaster was not that it failed, but that it so very nearly succeeded. The forces sent to Gallipoli were outnumbered by the defence, which was very thoroughly equipped, held all the commanding positions and was under very able conduct. The British troops detailed for the task were very largely the battalions of volunteers from Australia and New Zealand that had been detained in Egypt until it was clear that the Turkish menace to the Suez Canal was not likely to prove serious. Like the Canadians on the western front, the 'Anzacs,' as they were called, displayed magnificent qualities of dash and endurance, and it was precisely the quality of the troops which brought them within an ace of achieving the miracle.



THE VILLAGE OF NEUVE CHAPPELLE AFTER THE BATTLE

The 'grand offensive' planned by the Allies in March, 1915, began with Sir John French's determined attack on Neuve Chapelle, a village north of La Bassée, which had been in German hands since 1914. The British bombardment began on March 10, and, although the casualties were heavy, Neuve Chapelle was captured the same day. The battle wore on, without further ground being gained, until March 12. This photograph conveys some idea of the effect of the British artillery.

Photo Central News



SUVLA BAY, GALLIPOLI : SCENE OF A GREAT ALLIED ATTACK THAT FAILED

During the Gallipoli operations. In August, 1915, a British force landed unexpectedly at Suvla Bay, with the object of gaining control of the central heights of the peninsula. The advantage gained by the surprise element of the attack was lost by ensuing delay in advance and the Turks had time to consolidate before an assault in force was made on their positions. Substantially the project was a failure for the Allied arms.

Photo, Imperial War Museum

A landing successfully effected at five different points, and four days of hard fighting, put the British in possession of a very precarious foothold on the extreme tip of the Gallipoli peninsula. For six weeks bombardment of the Turkish trenches, impetuous assaults that won positions impossible to retain, and counter-bombardments of the much more exposed positions actually held, continued ; while submarines took their toll among the covering battleships and, in effect, imposed their withdrawal. The assaults were repeated at intervals until the end of July, still without substantial progress towards the objective.

But a bigger effort was at hand ; reinforcements were at last arriving. On August 7, while three attacks on the usual points were engaging the attention of the Turks, a force had been landed at a new and wholly unexpected point farther north, Suvla Bay, on the comparatively unguarded side of the Turkish defences. But the attack did not develop until the 9th, when it had lost the invaluable element of surprise, and it was held up. Fresh and more experienced troops were added, and the attack was renewed on the 21st. It was too late ; the defences had been thoroughly organized, and, though a substantial amount of ground was secured, the last chance of carrying the peninsula had gone for good and all.

Entry of Italy into the War

BOTH sides had been doing their best to draw Italy, Bulgaria, Rumania and Greece into the struggle. Italy was the first to depart from her neutrality. The temptations offered by Austria were not sufficiently strong ; there was a chance of getting the whole of 'Italia irredenta' by alliance with the Allies, none by alliance with the Central powers, who were making to Bulgaria offers incompatible with Italian ambitions. The Entente was more sympathetic to the historical claims of Italy on the east of the Adriatic. At the end of April Italy made her treaty with the Allies, and in May declared war upon Austria. But it was to war with Austria on the Italian front that the whole of her attention was devoted ; which mattered



THE COLLIER RIVER CLYDE BEACHED AT GALLIPOLI

The naval attempt to force the Dardanelles having failed, the Allies sought to effect their object by capturing the Gallipoli peninsula, which forms the northern shore of the strait. The British steamer River Clyde, converted into a troop ship, was used in the famous landing at Beach V on April 25, 1915. Disembarkation was effected after nightfall and the Turkish positions stormed the next day.

In the centre of the photograph may be seen the explosion of a Turkish shell.

Photo, Imperial War Museum

the less to Austria, because the Russian menace to her in the east was being dissipated by her German ally, and her Italian frontier was virtually impregnable, though her most advanced lines were driven in.

Neither Bulgaria nor Rumania intended to move till they saw something like a certainty of profit to themselves from their intervention; while as yet they could be

sure of nothing more than that Bulgaria would not get much out of the success of the Allies or Rumania from the success of the Central powers. The mind of Greece was painfully divided, since her leading statesman, Venizelos, was quite definitely on the side of the Allies, while her king, Constantine, primarily anxious to keep outside the quarrel, was alternatively



A QUIET MOMENT AT ANZAC COVE, GALLIPOLI

The term 'Anzac' popularly applied to troops from Australia and New Zealand was adopted for official use by the War Office in 1916. It is derived from the initial letters of the words Australian (and) New Zealand Army Corps. This cove north of Gaba Tepe, Gallipoli, was christened 'Anzac' by the troops who landed in April, 1915—the first occasion on which the use of the name is recorded.

Photo, Imperial War Museum

disposed in favour of the Central powers, all the more because Venizelos was endeavouring to coerce him. The Bulgarian and Greek crises arrived in October.

Success then had not attended the Allied offensive in any quarter except the head of the Persian Gulf, where its initial aims were not ambitious but were intended mainly to give security to the Persian Gulf itself and to worry the Turks by a threat to Bagdad. In June it had pushed up the Tigris to Amara. In August its advance troops occupied Kut. Without heavy reinforcement it was insufficient to undertake more than the holding of what had been won, but it was tempted to an effort to rush Bagdad. But the forces covering Bagdad at Ctesiphon made the odds so heavy that the attack had to be abandoned, and the troops were back at the beginning of December in Kut, where they were presently isolated by floods.

It was far otherwise, however, with the concentration of the German offensive upon the Russian left flank. At the end of

April, when a Russian offensive through the Carpathians was generally expected, Mackensen's hurricane burst upon Galicia with an artillery storm such that the Russians were wholly unable to meet it. They were rolled back staggering, but fighting hard, from the Dunajetz, over the San, out of Przemyśl, out of Lemberg, which fell on June 22. That was far enough for the time. Meanwhile another army had been thrusting on the northern flank and the Russian line covering Warsaw had become an extended salient again. Mackensen turned his attack against its southern side, the second German army attacked the northern, and the Austrians in the centre pressed on the salient's apex.

The Russians were forced to fall back upon Warsaw, only holding the line until the city could be evacuated (August 4); then, behind it, fighting desperately as the shortened line straightened up. The weakened right, however, was now more seriously menaced than it had been by even the heaviest of Hindenburg's onslaughts. The fall of Kovno in the middle of August



KUT PERILOUSLY ENVELOPED IN A BEND OF THE TREACHEROUS TIGRIS

The geographical position of Kut, situated in a U-shaped bend of the Tigris, renders it liable to flooding and consequent isolation. This fate befell the British troops under Townshend in December, 1915, when the Turks invested the town. After a valiant defence, Townshend surrendered Kut in April, 1916, but operations were begun for its recapture in December of the same year. In February, 1917, Kut came again into the possession of the British, who reconstructed it after the war.

Photo. Royal Air Force, Crown copyright

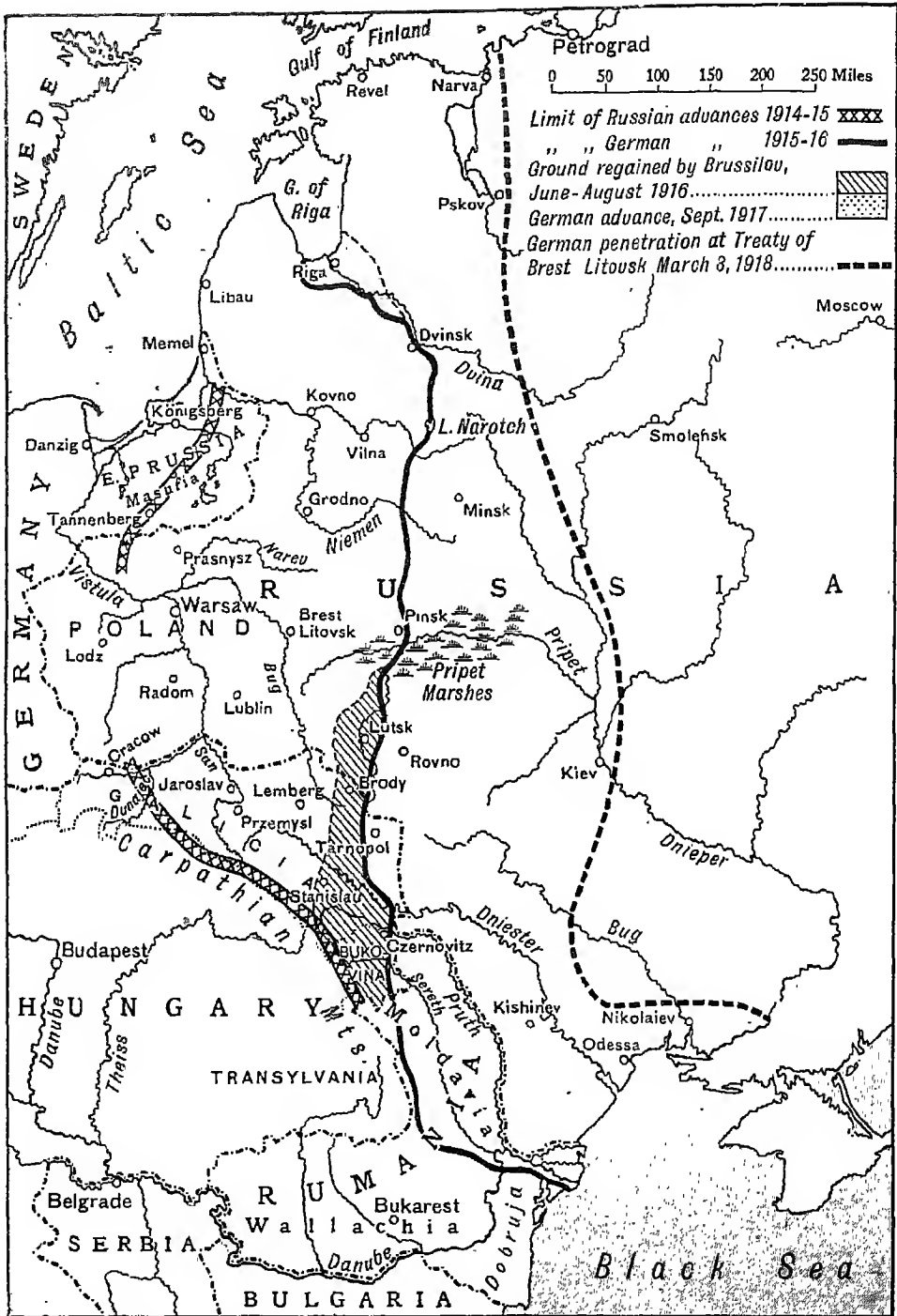


After the Russian evacuation of Warsaw in August, 1915, the German troops, commanded by Prince Leopold of Bavaria, entered the Polish capital in triumph. This spectacular view represents the prince outside Warsaw's Russian church watching his regiments march past. The retreating Russians blew up the three bridges over the Vistula as they went.



The Russians laid siege to Przemyśl, a Galician fortress city, in September, 1914, and in December of the same year Hindenburg began operations for its relief. The city surrendered to the Russians in March, 1915, but they were unable to hold it long, for a successful Austro-German campaign in Galicia enabled Mackensen to advance on Przemyśl in May and to accomplish its recapture in June. The Austro-German troops are here seen entering the town.

REVERSES OF RUSSIAN FORTUNE IN POLAND AND GALICIA



FLUCTUATING FORTUNES OF WAR UPON THE EASTERN FRONT

It should be noted that the lines on this map of the operations in the eastern area do not in most instances represent continuous battle fronts. For one thing, the trench system was never so highly developed as in the west; for another, they are intended to show limits of advance or retreat that were not necessarily contemporaneous. For instance, the advance of the Russians in East Prussia in 1914 had been broken at Tannenberg before their maximum advance in Galicia was attained.

The Great War

was followed by that of Brest Litovsk at the centre before the end of the month, and touch between the northern and southern Russian lines was severed by the Pripiet marshes. By this time, however, the fury of the storm was abating, partly owing to the distance of the advance from the base, and the Russians in September were able to keep their hold on Vilna and the railway to Petrograd, and partly though not wholly on the rail from Vilna south to Rovno.

The defeat of the Russians cleared the way for the Central powers to carry out their programme in the Balkan peninsula. They had satisfied Ferdinand of Bulgaria that they were the winning side, and in October he mobilised against Serbia. A few French and British troops occupied Salonica at the invitation of Venizelos, who was determined to carry out Greece's treaty obligation to go to the help of Serbia if she were attacked by Bulgaria. But King Constantine dismissed the minister and repudiated the obligation. The Allied force at Salonica was too small to render effective aid, and Serbia, attacked on all sides, suffered her martyrdom, her people fleeing, while her armies fought a series of desperate rearguard actions to cover the retreat, to the coast and across the Adriatic; and Bulgars, Austrians and Germans overwhelmed them. And before the year was over the British accepted their defeat on the Dardanelles, and effected without loss the evacuation of the Gallipoli peninsula—a feat of skill difficult if not impossible to parallel.

The Battles round Verdun

THE Allied offensive, if it should still be so called, on the western front continued in the autumn and early winter on the same unproductive lines on the British front and in Artois and Champagne. That is to say, there were



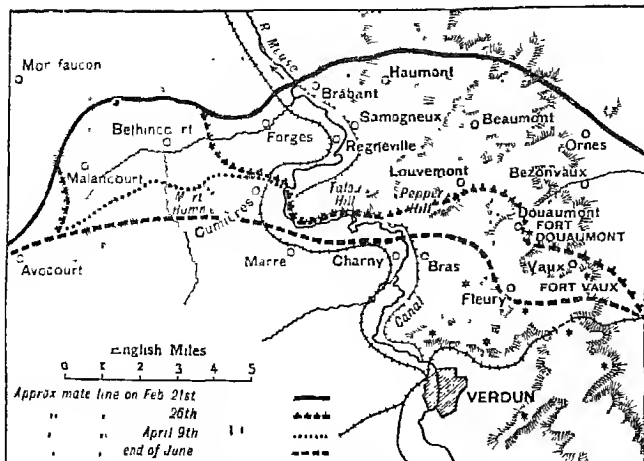
LAST ACT OF THE DARDANELLES TRAGEDY

The terrible if magnificent blunder of the Gallipoli campaign ended with a brilliant military operation when the peninsula was evacuated gradually throughout December, 1915, without the knowledge of the Turks. This photograph shows preparations for firing stores with straw and petrol, which were set off by time fuses after the last man had embarked on January 9.

Photo, Imperial War Museum

fierce local attacks by which a few square miles distinguishable only on large-scale maps were left in occupation of the Allies instead of the Germans, and minor local attacks in which the losses and gains were balanced; while the casualties, also probably balanced, were very heavy on both sides. But the Germans had concentrated on their eastern offensive, which had carried them to the limits of their possible advance against Russia, having ever in mind the warning of Napoleon's disastrous advance to Moscow; they had established their own and their allies' predominance in the Balkan peninsula, though they had not yet won over Greece and Rumania, which were both still sitting on the fence; and they could afford to concentrate again on the west. The feature of the first half of 1916 was the western offensive of the Central powers; that of the second half was the Allies' counter-offensive.

While on the defensive, the Germans had virtually limited their expenditure of men and munitions to holding their



THE GERMAN ATTACK ON VERDUN

The German assault on Verdun during the first half of 1916 was divided into three main attacks, beginning on February 21, March 2 (with a subsidiary one on April 9) and May 3; all resulted in German advances, as shown in this simplified map, all failed in their ultimate object, and the last ended in a French recovery of ground.

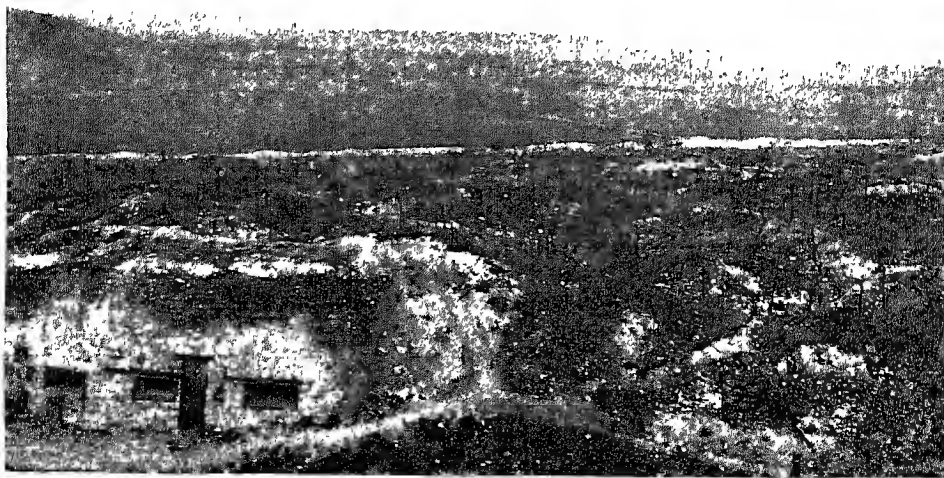
lines, so that in spite of the enormous demands on the Russian front they were able to accumulate both for the coming onslaught in the west. On the other hand, the Allies had greatly increased their own production of war materials, and the small British army had grown into a

imperative for the Allies to prevent a German thrust to the coast, to Calais and Boulogne. The object of the northern demonstration was to mask the main attack, which burst on February 21.

Verdun, with its own fortifications, stood at the centre of a defensive arc having a

comparatively large one, able to take over a longer section of the line than before, though it was only now that voluntary enlistment was superseded in Great Britain itself, though still not in the Dominions, by conscription.

The German grand attack was on Verdun, the salient thrusting out into the German line in the south; threatening movements against the French at other points and against the British were also made, but these were primarily to prevent reinforcement at Verdun, since it was



FORT VAUX TWO YEARS AFTER THE CESSATION OF HOSTILITIES

What Ypres is to British sentiment Verdun is to French; at few points on the western front was the fighting more bitter, the combined French and German losses there in 1916 being estimated at nearly 700,000. Most of the German advance was achieved in the first attack, which drove in the outer French defences to a line running from Vaux fort on the east to the Mort Homme ridge on the west. On the extreme French left the line in front of Béthincourt and Malancourt still held.

Photo, Imperial War Museum

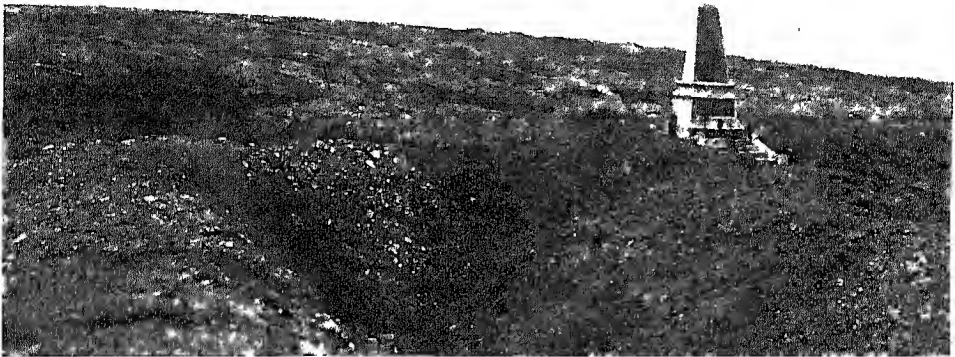
The Great War

radius of nine or ten miles—about one-third of a circle—facing north, the line continuing southward at each end. Between the outer circle and Verdun were two more lines of defence. If those lines were carried, so that the siege guns could be brought within effective range, Verdun would become untenable, and the moral effect of its fall would be tremendous, though it might not sever the French eastern and western forces.

The German attack drove in the centre of the outermost and weakest line on the first day, and the rest of the line had to fall back in conformity. On the centre and right the French continued to be

and gave them the actual fort of Douaumont, of which they remained for the most part in possession, but not, as they had imagined, the command of the ridge, which remained perpetually contested; while they had only flattened the centre without bulging it, and the shortened line was rather stronger than the longer one. Also, French reinforcements were more than filling the gaps.

The first great thrust had failed, after all. On March 2 began the second great thrust, this time against the French left, in the direction of Mort Homme. For a week the Germans were gaining ground; then the battle on the left was suppl-



MEMORIAL TO FRENCH HEROISM ON THE SUMMIT OF MORT HOMME RIDGE

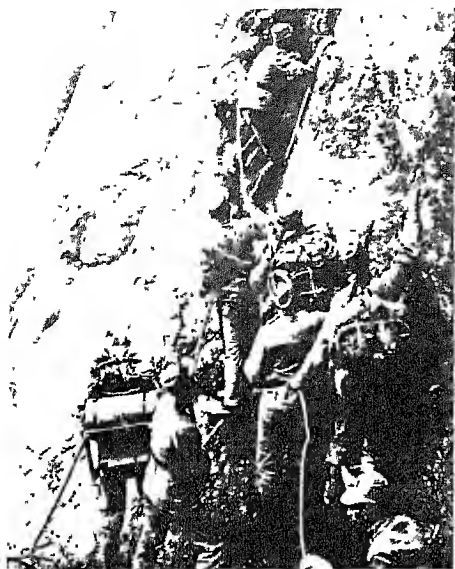
After the first attack on the Verdun sector the Germans only made material progress on the two flanks of the flattened Verdun salient, Vaux fort fell on June 6, and the Mort Homme ridge, after changing hands several times in May, was left with the attackers established precariously on it. Here was the most desperate fighting of the whole engagement, and in 1919 the memorial seen above was erected; but the terrain, as at Vaux fort, was left otherwise untouched.

Photo, Imperial War Museum

pushed back until they lay on the line from Vaux and Douaumont on the east, through Pepper Hill and Talou Hill in the centre, to Malancourt and Béthincourt on the west, as the result of four days' desperate fighting. Then Talou Hill had to be abandoned, and on February 25 the Germans launched the assault that was to shatter the defence. At nightfall they believed themselves to have achieved their object; next day they discovered their mistake. They had attacked the centre and right. In the centre they had carried Louvemont, but failed at Pepper Hill. On the French right they had concentrated great forces that carried them to the top of the Douaumont ridge

mented by an attempt to turn Douaumont ridge on the right; which failed, however, though they were getting nearer to Mort Homme, on which they gained a footing on March 14. By the end of the month they had almost, but not quite, turned its left. Another heavy attack along the left and left centre began on April 9, and developed into a three days' battle, at the end of which Mort Homme and Pepper Hill and the line between them still held, though here again the fray had rocked furiously forwards and backwards.

The struggle had been frightfully exhausting and costly for both sides, and there was a lull for three weeks. The storm burst again on the left on May 3,



AUSTRIANS ON THE ITALIAN FRONT

The early fighting on the Italian front saw slight Italian successes, but in May, 1916, the Austrians developed a successful offensive. These are troops of the Austrian Alpine Corps scaling a hill during the first Italian offensive on the Isonzo.

Photo, Photo Press

accompanied by another attempt upon Douaumont ridge. The Germans were bent on achieving their object this time, whatever the cost. By the end of the month they forced the French back to a straight line from Avocourt to the left bank of the Meuse, while on the right they had carried Douaumont, lost it, and carried it again, threatening Vaux, which held out till June 6. But they could get no farther. There was a pause for nearly a week; and then, though it was the Germans who renewed the attack, it was the French who recovered ground. And at the moment when the attack on Verdun was exhausted the British, on July 1, opened their offensive on the Somme.

It was at the end of May that the German fleet broke its inaction and put to sea to meet the British fleet in what was the only serious naval engagement of the war—the battle of Jutland, described in pages 4845-53. Though it was a strategical defeat for the Germans, it may not unfairly be described as a tactical victory; for the German battle fleet escaped, having inflicted more dam-

age than it had suffered. But no portion of it issued from its ports again till the war was over. From the day of the battle of Jutland it was out of action—action, for the German navy, was confined to the submarine campaign.

While the Germans were carrying out their offensive against French and British the Austrians were conducting their own counter-offensive against Italy, which was not as yet technically at war with Germany; practically the entry of Italy into the war was a resuscitation of her immemorial feud with the Hapsburg power. Austria might well have contented herself with holding her own frontier, which was of immense strategic strength; but the temptation to penalise Italy was too strong for her, and the threat might induce some dispersion of French and British forces for the defence of their Italian ally, which would be convenient for her own German ally. So in May she developed an attack through the Trentino, directed towards Venice.

The advance began successfully enough, turning the flank of the Italian offensive on the Isonzo line, which was directed against Trieste. But at the end of a month the advance was checked by Italian reinforcements, and by a sudden advance of the Russians in the east. The defence of Galicia was much more important than a spectacular advance in Italy, and by the end of June the Austrians were falling back. That offensive, too, had failed.

Renewed Activity of the Russians

ELSEWHERE the British had met with a reverse in Mesopotamia, where the Turks had been under German command since Ctesiphon. The advance force at Kut had been isolated, the attempts to relieve it were balked by the Tigris floods, and it was forced to surrender at the end of April. On the other hand the Russians, though reduced to inaction in Europe, had conducted a very successful winter campaign in the Caucasus, whither the grand- duke Nicholas had been transferred from the chief command of the armies in Europe. Erzerum was captured in February, though it was not till April that the same fate befell Trebizond.

The Great War

It was not the fault of the Russian troops or the Russian generals that they had been driven back to the last defensive lines in 1915. For that the ineptitude—or worse—of the Russian bureaucracy was responsible; and the great Allied offensive of 1916 was opened not by the British on the Somme, but by the Russians in Galicia.

The Russians, after being swept back to the line running north and south from Vilna to Rovno, had held up the further attacks aimed at Riga in the north, while Mackensen had been withdrawn in the south to deal with Serbia. Later they had made tentative attacks at various points; but it was at the beginning of June, when the Austrians were dissipating their forces in the Trentino adventure, that they opened a powerful offensive along their whole left front between the extremity of Galicia and the Pripet marshes; the forces opposed to them being mainly Austrian, though in their right centre they were under a German commander, Bothmer.

For a fortnight from its beginning on June 3 the attack drove forward successfully, crumpling up the Austrian resistance, held up before Tarnopol by Bothmer, but turning his right and thrusting into Bukovina, the province marching with Rumania. In the next three weeks the Austrians were out of Bukovina, Bothmer

was finding it very difficult to cover Lemberg and Stanislaw, and it appeared possible that from the north as well as the south of the Pripet marshes Russian armies might converge upon Brest Litovsk, while their left was sweeping through Galicia again. On the other hand, German troops—and commanders—had arrived and were still arriving at top speed from Verdun, and Austrians from the Trentino (where the Italians were rapidly recovering the ground previously lost).

The pressure was checked, not stopped. Concentrating on the Galician wing, the Russian advance on Bothmer's left and right in July compelled him to fall back, and early in August Stanislaw was taken; but by the end of the month Bothmer was able to hold his ground, though in the two following months the Russians seemed about to penetrate the Carpathians.

THE Russian successes ended Rumania's hesitation and brought her into the war in August—quite obviously for the purpose of joining to herself Transylvania, where the Magyars ruled over a mainly Rumanian population. As a matter of course, the Rumanian armies made Transylvania their objective, and swept triumphantly through the Carpathian passes on their frontier. But the result was unfortunate for the Allies and disastrous to



SOLDIERS OF THE ITALIAN ARMY ADVANCING THROUGH ALPINE SNOWS

The Austrian advance in Italy was a short-lived success; for under a vigorous counter-stroke by General Cadorna, in June, 1916, and alarmed by the renewed Russian activity in Galicia, they retreated, not without loss, to the old frontier lines. Italy's entry into the war on the side of the Allies (May 23, 1915) had been strongly influenced by the consideration that only from their victory did she have a chance of obtaining the 'Italia irredenta' under Austrian rule.

Photo Imperial War Museum

Chronicle XXXII. 1914-1918

themselves. Russia, not without excuse, failed to give the support expected from her; and the Rumanians as they swung forward found themselves exposed to a German counter-offensive, the Germans having promptly taken the matter into their own hands on the top of the battle of the Somme and the defence of Galicia. In September Mackensen was invading the Dobruja and Falkenhayn was driving back through the Carpathian passes without any movement on his flank from the Russians. Even so it was not till November that the Rumanian resistance in Wallachia was broken and Bukarest fell on December 5. All that was left to her was the northern province of Moldavia.

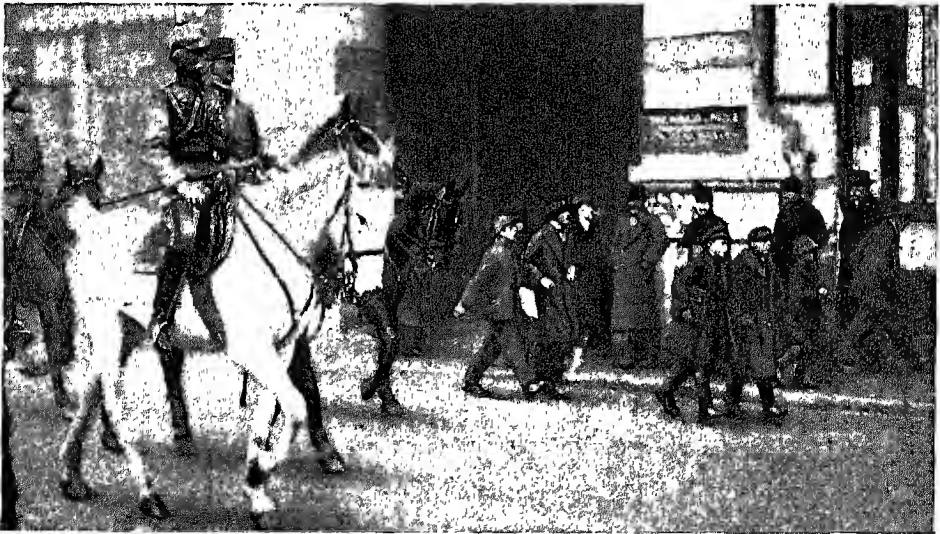
The First Battle of the Somme

IT was well for the Germans that the long struggle before Verdun had so exhausted the French for the time that their share in the Allied offensive in the west was less than it would otherwise have been; since masses of German troops and munitions were perforce withdrawn from the west to counter the Russian and then the Rumanian offensives in the east. The

result showed what warrant there had been for their confidence in the strength of their own lines in the west.

The growing British armies had been able to take over from the French a great part of the line on their own right, which now extended almost to the north bank of the Somme between Amiens and Péronne, considerably to the south of the previous offensive of 1915. It was here on a front running some dozen miles north of the river (British) and a like distance south of it (French) that the battle of the Somme opened on July 1, carrying that line forward during the following months to a depth of about seven miles. The German trenches were constructed in series far away to their rear, running deep underground, so that even when a trench line had been shelled and carried, it had itself been rendered almost untenable for the victors while the line behind was intact.

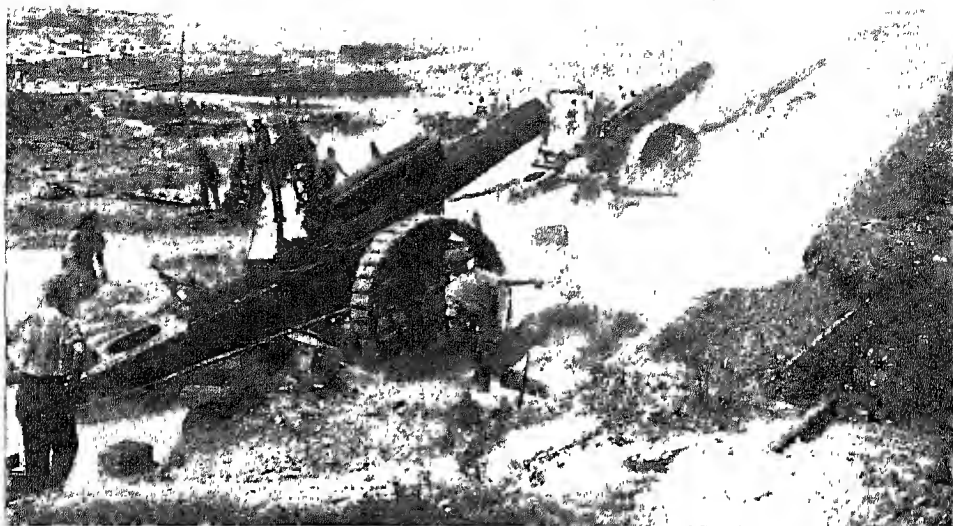
Without very large maps it is impossible to follow the details of the prolonged struggle at one point or another, the captures and recaptures, advances, retreats and recoveries; there was never anything like a break through, though that was what



FIELD-MARSHAL VON MACKENSEN ENTERS BUKAREST IN TRIUMPH

The Rumanian decision to espouse the Allied cause was based on hostility to the Hungarians who ruled over a large Rumanian population in Transylvania; while the temporary Russian successes of June-August, 1916, seemed to indicate the moment for intervention. After successfully piercing the Carpathians, however, the Rumanian army found itself fronted by Germans under Mackensen; and the autumn saw a complete débâcle that only ended with the fall of Bukarest in December.

Photo, Imperial War Museum



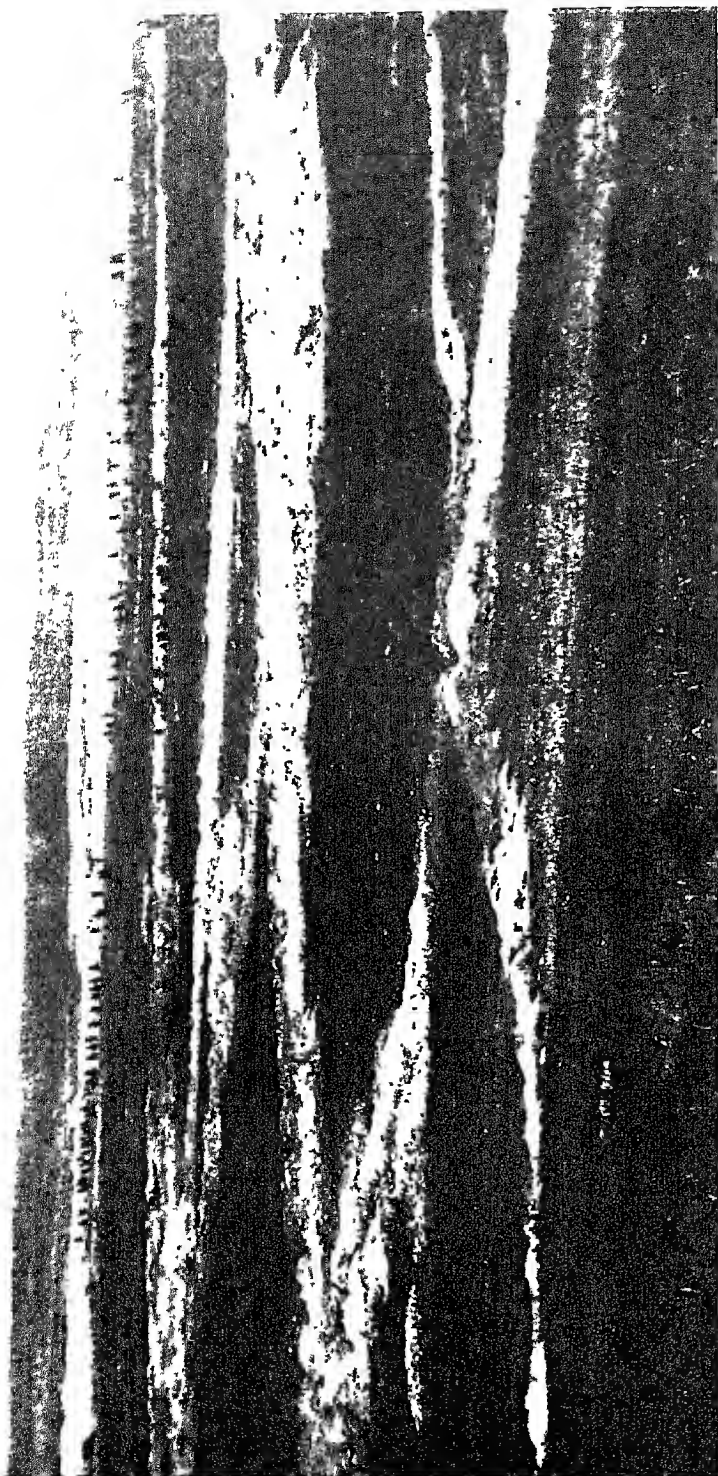
A feature of the Somme offensive was the tremendous artillery bombardment that preceded it, lasting for seven days. Yet it is acknowledged that the artillery preparations were insufficient; shells began to run short before three weeks, and there was a lack of heavy guns for counter-battery work. This is the 39th siege battery of 8-in. howitzers between Fricourt and Mametz in August.



The German Verdun offensive had forestalled a great Allied push designed for the summer of 1916, in order to relieve the French the latter was started early (July 1) before preparations were quite complete. The front stretched from Gommecourt in the north to Soyecourt, the French under Fayolle being responsible for the sector from Hardecourt southwards; the whole operation is known as the first battle of the Somme. Supports are here moving up near Ginchy, September 25.

SCENES NEAR THE FRONT DURING THE BATTLE OF THE SOMME

Photos, Imperial War Museum



WHAT AN ATTACK DURING THE GREAT ARTILLERY BATTLES LOOKED LIKE : THE ADVANCE ON MAMETZ

The real innovation of the Somme battle was not the long preliminary bombardment, for that had been employed in 1915, but the creeping barrage, first introduced on a small scale by the French at Verdun. The infantry went forward behind an advancing wall of shells ; and under these conditions it is not in the initial stages that the heaviest losses occur, the attack offering the unspectacular sight of a line of men proceeding over torn ground at a slow pace owing to weight of equipment. This photograph of the assault on Mametz on July 1 was taken just after the barrage lifted.

Photo, Imperial War Museum

The Great War



CONSTANTINE, KING OF GREECE

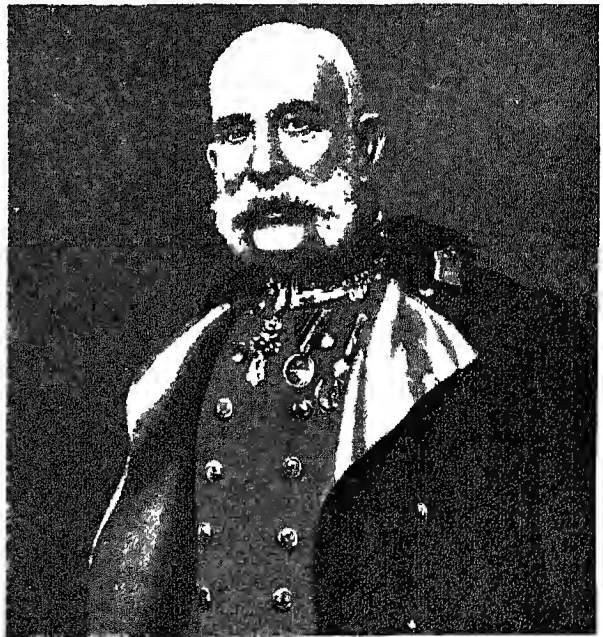
In 1913 Constantine (1868-1923) became king of the Hellenes. His policy of maintaining Grecian neutrality in the Great War finally caused his deposition in 1917. Restored to the throne in 1920, he abdicated in 1922.

Photo, Russell & Sons

the uninstructed public across the Channel were looking for, whatever the actual anticipations of the commanders on the spot may have been. The most marked successes attended the fighting in September, when the British first brought 'tanks' into play (see Chapter 179). It is probable, however, that the line that had been reached by the British and the French on their right by the end of November was short of what it had been hoped to attain in the first week of the Somme battle. Whether it had cost the Allies or the Germans the more in serious casualties is a highly disputable question.

Meanwhile the Italians were making progress on the Isonzo front, having captured Gorizia in August; but Rumania was being broken, and her conquered territories gave the Germans control of invaluable oil fields. The Russians had latterly made little advance in

Galicia, gave no help to Rumania, though they were progressing in Asia Minor, and made no diversion for the benefit of the Allied offensive in the Balkans from the Salonica base; for which things the responsibility lay not with the generals but with the political system. Austria was disintegrating, and the disintegration was hastened by the death of the aged emperor, Francis Joseph. Arabia was in revolt against Turkey and had declared its independence. In the Balkans the French, with the valiant remnant of the Serbian army, captured Monastir, but real progress was postponed for a long time, because Greece was divided against herself; and if the war party was the more popular, King Constantine retained control of the government and was apparently doing his best to play into the hands of the Central powers, while at Salonica the Venizelists set up a provisional government for themselves. And the German submarine campaign was developing steadily.



FRANCIS JOSEPH I, EMPEROR OF AUSTRIA

After a long and tragic reign Francis Joseph I, who ascended the Austrian imperial throne in 1848, died on November 21, 1916. His very real endeavour to rule his heterogeneous empire had done much to retard its disintegration. He was succeeded by his grand-nephew Archduke Charles.

After the painting by L. Horowitz



PERONNE WRECKED BY THE RETIRING GERMANS IN 1917

Throughout 1917 the initiative on the western front lay mainly with the Allies, who in the opening of the year began offensive operations with the old Somme front as the centre. Before them the Germans retreated methodically to the Hindenburg lines; Péronne beneath Mont St. Quentin fell to the British on March 18, but before evacuation the Germans wrecked it by fire and explosive.



ENTRY OF THE U.S.A. : BRITISH AND AMERICANS FRATERNISE

The deciding factor in the war was the entry of the Americans (April, 1917); for without them, whichever side eventually won, the final issue must have been delayed for many bitter months, perhaps years. Their first troops arrived in France under General Pershing in June of the same year and started an intensive training behind the lines. This photograph shows American and British officers meeting for the first time. By July of the following year a million troops had arrived.

Photos, Imperial War Museum

The Great War

On the face of things, then, at the close of 1916, the presumptions pointed to a stale-mate, though it was easy for each side to persuade itself that the presumptions were in its own favour, since neither could fully gauge its own capacity for endurance, still less that of the other. If either side won, it would be the one which could hold out longest. Each wished to end the war, but only on its own terms, which meant that the other side must definitely acknowledge itself the defeated party and original aggressor. The Germans invited the friendly interposition of the United States to negotiate a peace ; the Allies responded to the first overtures with a definite declaration of their own minimum requirements ; the German government implicitly repudiated the American president's own demands in respect of the submarine campaign ; the president finally came to the conclusion that Germany's ambitions were an intolerable menace to world progress, and that the cause of world progress demanded the armed intervention of America. In April the United States declared war on Germany (see pages 4733-34).

The American declaration of war and the Russian revolution were the two events

of the spring of 1917 which wrought fundamental changes in the situation. The one meant that the Germans, if they were not to be beaten, must have the Allies decisively beaten before the American armies were ready to take the field in strength. The other, not at first so obviously, meant that Russia would cease to count. When Russia was off the board, Germany made her supreme effort in the spring of 1918, and when that effort reached its culmination the new armies from America were already taking their place in the fighting line.

Allied Offensives of 1917

WHEN 1917 opened, however, the Allies were confident that they could win, and the Germans were confident that they could at any rate hold what they had already won, though on a slightly modified line more impregnable than that of which they were still in occupation. The British and French pressure began again in January along a front constantly extending both northwards and southwards, the Germans retreating gradually before it to the newly prepared line, since they had no intention of renewing a struggle for the devastated Somme battlefields ; but it



VIMY RIDGE : PRIZE OF THE SECOND BATTLE OF ARRAS

When the Hindenburg lines proved impregnable the Allies endeavoured to outflank them by simultaneous attacks north and south. Both attempts failed in their ultimate object ; but while the French under Nivelle were repulsed before the Chemin des Dames, the British made substantial advances in the second battle of Arras (April), capturing the immensely important Vimy Ridge and entrenching in the plain beneath. These Canadians are digging reserve trenches on the ridge itself.

Photo, Imperial War Museum



GENERAL MAUDE

Sir Frederick Stanley Maude (1864-1917) was in command of the 13th Division in Gallipoli, Egypt and Mesopotamia in 1915. In 1916 he was appointed to the chief command in the Kut area, and entered Bagdad in March, 1917.

Photo, Swaine

was an organized, if reluctant, retreat in which they fought for every inch of ground, but no longer than was necessary to prevent the retirement from being inconveniently hustled. The stolid repetition of the announcement after each withdrawal—that it had been successfully executed ‘according to plan’ had more than an element of truth in it, though it excited the sarcastic comments of the Allied press. And the mangled territory they left behind them was itself a protection to that section of their front; which enabled them to concentrate forces upon the wings where the main struggle was bound to take place.

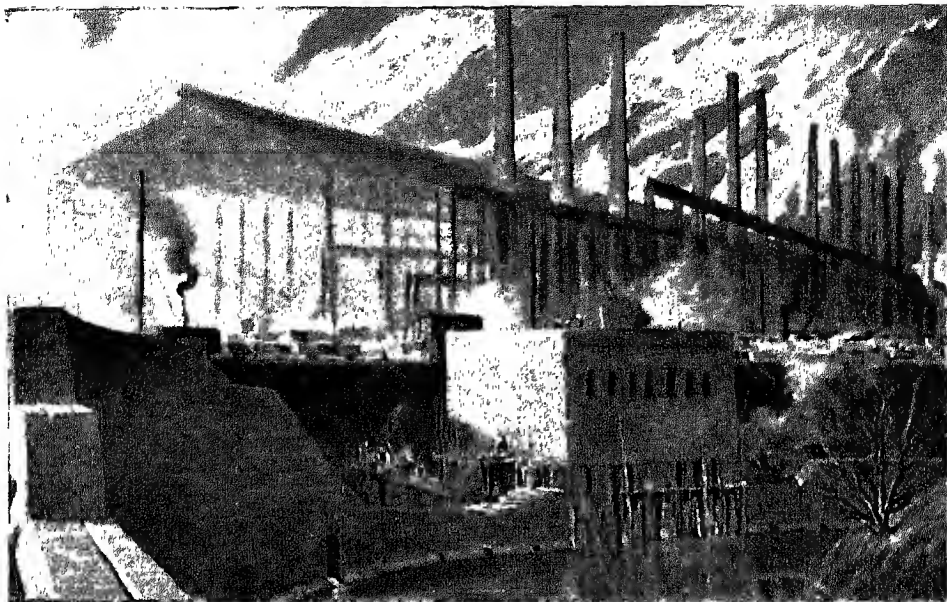
In March, then, the Somme advance at the centre, where the French and British armies joined, was pushed almost up to St. Quentin, running north to the southern point of the old 1915 sector in front of Arras and facing the Vimy ridge, and southward to the north-east of Soissons. On April 9, four days after the American declaration of war, the British began the second battle of Arras. In two days the Vimy ridge had been

captured, and within the week the line south of it had been carried forward four or five miles so as to threaten the flank of the new ‘Hindenburg’ lines. But Nivelle’s attack at the southern extremity on the Chemin des Dames was not equally successful; ground was won, but the Germans were not driven out, and the general effect of the second battle of the Aisne on the French was as depressing as that of Arras was encouraging to the British.

In the ‘side-shows,’ however, in Africa and Asia, which were mainly the concern of the British Empire on the one side and of Germany and Turkey on the other, the British were winning in every quarter. The South African Union and troops from India had at last cleared the Germans out of German East Africa, and their forces were now being added to the other Dominion troops in Europe. In the Mesopotamian area the new commander, General Maude, by a series of skilful operations, cleared the Turks from Kut in February and occupied Bagdad in March. The Turkish troops escaped from the trap in which they had almost been caught, but by the end of April, when climatic conditions suspended campaigning, Bagdad was eighty miles behind the British front. An offensive from Egypt had been hitherto prevented by the disturbances among the desert tribes; but these had now been quelled, and an advance on Palestine had opened.

Final Collapse of Russia

BUT the collapse of Russia was the factor for which the change of front in America was the much-needed compensation. In its initial stage the revolution looked as if it was likely to prove very much to the advantage of the Allies, since it seemed to be only the victory of the Russian constitutionalists over the poisonously corrupt bureaucracy, which was more than suspected of treason to the Allied cause. But the control of it rapidly slipped out of the hands of the constitutionalists into those of the socialist moderates, and from them to a fanatic of genius, Lenin, and his colleagues, the champions of a movement begotten and



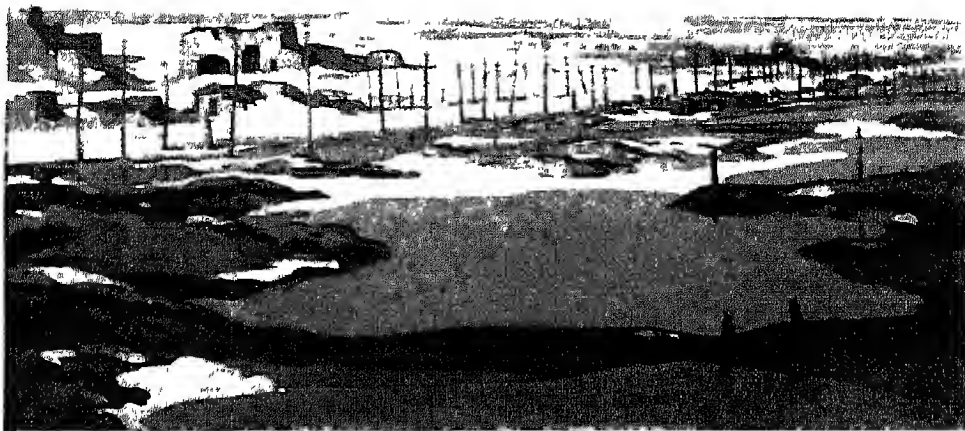
Many official paintings serve to remind posterity that the Great War was a war of peoples and not of armies alone. The Phoenix steel works here portrayed by Sir Charles John Holmes were erected in Sheffield for Messrs. Steel, Peech and Tozer, solely to make munitions of war, and were no more than two years old at the date of the painting (1918).



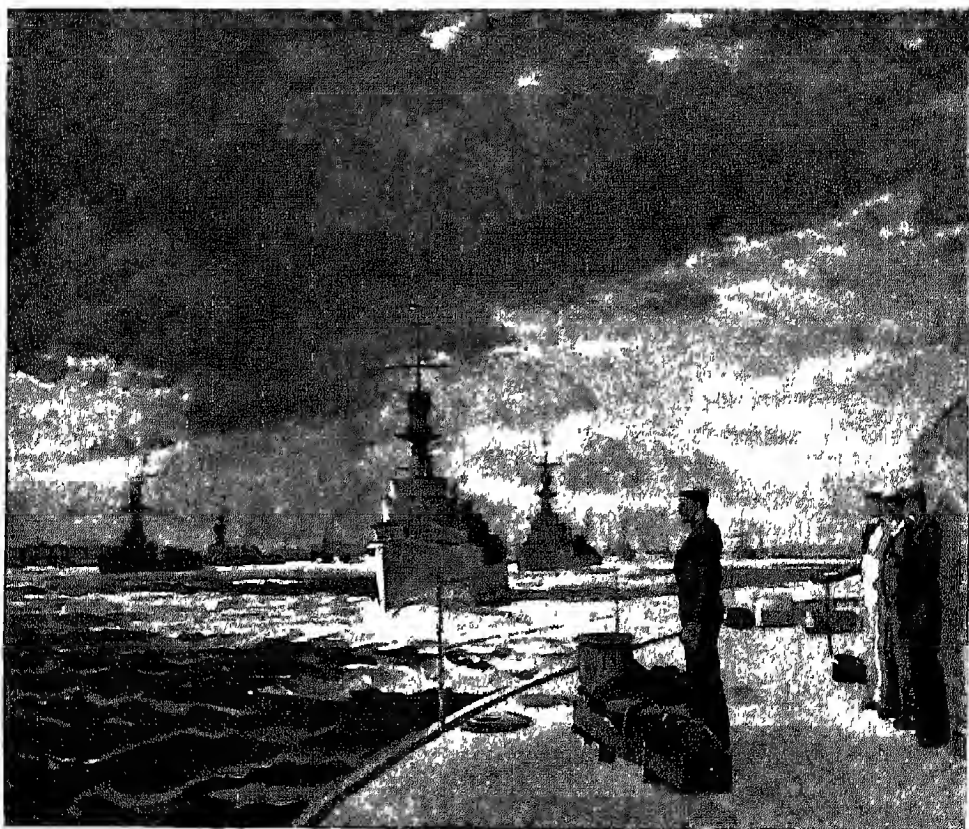
Every great conflict has provided inspiration for artists, but never before the Great War has the artist received such recognition on the spot. The purpose of most paintings in official collections is documentary, but 'modernists' (see Chapter 188) were also employed. Thus, while few familiar with a trench will find photographic realism in John Nash's impression of the 1st Artists' Rifles at Marcoing (December 30, 1917), something of the atmosphere has been captured.

AS ARTISTS SAW THE WAR: HOME FRONT AND 'OVER THE TOP'

Crown copyright; photos, Imperial War Museum



Beauty was not absent from the battlefields of France for those who had eyes to see it. Many will remember the cornflowers and poppies of the Vimy Ridge and Sir D. Y. Cameron, R.A., in the painting above shows that winter could cast an unearthly loveliness over the dreadful desolation of the Ypres Salient pockmarked with the water-filled craters of the shells.



One of the most thankless tasks of the Great War was patrol work in the North Sea—a task which kept nerves strained to the utmost, was carried out under trying physical conditions and was relieved by little excitement. Much of it was performed by the destroyers of the Harwich flotillas here seen putting to sea in a painting by Philip Connard, R.A. Its geographical position and its good harbour made Harwich an excellent base for the purpose.

THE SETTING OF MODERN WARFARE ON LAND AND SEA

Crown copyright photos Imperial War Museum

The Great War

born of anti-Semite pogroms and the 'nihilism' that had first been created and then apparently crushed by the unspeakable tyrannies of the bureaucratic regime, having as its aim the total subversion of the existing social and political order, not only in Russia, but everywhere, something much more destructive than had been dreamed of by the most reckless of the French revolutionaries at the end of the eighteenth century

At the beginning of March there were disturbances in the capital, troops there mutinied, and some of them shot their officers. The Duma—what passed for a parliament—set up a provisional government, of which the socialist moderate Kerensky became the leader, and on March 15 the tsar abdicated. But the effective power was in the hands of the council of delegates called the Soviet, in which the extremists, who were known first as Maximalists and then as Bolsheviks, very soon predominated. In May the provisional government, still led by Kerensky, was reconstructed on a more extreme basis. The subsequent internal developments are narrated in Chapter 184, in the meantime Kerensky strove hard to revive patriotic zeal in the conduct of the war, but the multiplying soviets organized by the extremists were zealous only for the social revolution which they had been preaching among the soldiery, whose discipline had gone to pieces.

With the most trustworthy of the troops Brussilov, at the beginning of July, opened a desperate offensive towards Lemberg, winning at first astonishing successes, reminiscent of the French revolutionary armies at the end of 1792. But he had no reserves, when the Germans delivered the inevitable counter-offensive on the 19th half the Russian troops refused to fight and fled in complete rout.

The last chance of a successful stand was gone. Lenin in Petrograd had raised an insurrection and the government was tottering. In August the Rumanians, deserted by the Russian government and the Russian troops, made a heroic stand against the onslaught of Mackensen which gave the shattered south Russian armies breathing space but did not

prevent the Germans in the north from advancing upon Riga, though they were as anxious as Lenin himself to end the war on the eastern front and leave the Russian revolution to pursue its disintegrating and destructive career. In November Kerensky's government collapsed altogether, and the only government left was that of the Bolsheviks headed by Lenin and Trotsky, whose first aim was to negotiate the withdrawal of Russia from the war.

British Offensives in Flanders

IN the west, the scheme of the great Allied 'push' all along the line broke down with Nivelle's failure to carry and hold the Chemin des Dames in April. The further efforts of the French and British were not concerted. Progress



NICHOLAS II AND BRUSILOV

The Russian tsar Nicholas II (left) was compelled by the revolution to abdicate on March 15, 1917. Under General Brusilov, here seen beside the tsar, the Russian troops met first with some success, but finally with failure.

Photo, Central News



MARSHAL PÉTAIN

Born at Cauchy-à-la-Tour in 1856, Henry Philippe Pétain held a succession of distinguished commands in the French army, 1914-18. In March, 1918, he became commander-in-chief of all the French armies.

Photo, E.N.A.

at the centre against the Hindenburg line offered less promise than a northward extension of the British advance before Arras, with a view to diminishing the

German control of the Belgian coast—the base of that submarine campaign which was the one effective offensive weapon of the Germans against Great Britain, the islands being so greatly dependent upon food supplies from overseas. For the air raids, though exasperating, did no great amount of military damage.

Hence the month of June witnessed the most resounding and nearly the most spectacular stroke of the war. On the way towards Ypres lay the Messines ridge; it had been the stage of much hard fighting which, as at Vimy until the Canadians stormed it, had failed to dislodge the Germans. Subterranean engineering operations had been in progress undetected for some time past. The whole of the surface defences were subjected to a terrific bombardment during the first week of the month, and on the 7th the simultaneous explosion of nineteen mines blew what was left to pieces in one vast eruption. The practical effect was to force on the Germans a retirement which left Ypres a salient no longer. But the success was not followed up for some weeks, during which the new German line was consolidated, with the advantages accruing from the shortening of it. No more effective advance was attempted



SPOIL OF WAR ON THE CAPTURED WYTSCHAETE RIDGE

The operations known as the battle of Messines were a continuation of the British 1917 offensives, but directed rather to the coast than to the outflanking of the Hindenburg line. They involved the Messines ridge itself, where the attack was opened by the explosion of nineteen enormous mines (June 7; see page 4810), and the Wyttschaete ridge, its extension dominating the Ypres salient. Both were captured; and this is a German field gun being hauled off near Wyttschaete on June 10.

Photo, Imperial War Museum

The Great War

till the end of July, when, simultaneously, the weather broke and the Flanders flats were converted into an ocean of mud on which movement was almost impossible.

The British armies got no nearer to the Belgian coast. Still, however, they hammered on in Flanders, despite the adverse conditions, checked here and gaining some ground there, with little enough to show. In November there were some brilliant days when, without the warning of artillery preparation, an attack was launched by their right against Cambrai, where the Germans were taken by surprise. If the British success had been complete another withdrawal would have been imposed on them; but just in time masses of reinforcements were rushed up from elsewhere, the attack was held up, being inadequately supported, before its objective was reached, and in the end the ground that had to be abandoned was more than what was won.

The French autumn campaign, Nivelle's place having been taken by Pétain, was not ruined like that in Flanders by climatic conditions, was less ambitious in its scope, less critical from the German point of view, and proportionately more successful in its achievement, and it did much to restore French confidence. Most of the ground won by the Germans in the attack on Verdun was recovered during August, and, in October they were at last forced definitely to abandon the Chemin des Dames.

IN the east, King Constantine's pretence of neutrality became so meagre that his authority could no longer be tolerated and the arrival of Allied warships in June forced him to abdicate in favour of his second son, who was a minor; for practical purposes the government became a regency



DRAMATIC SURRENDER OF JERUSALEM

General Allenby entered Jerusalem on December 11, 1917, an event that resounded throughout the Christian and Mahomedan worlds. The town had surrendered two days earlier to a small British advanced post in command of a sergeant, the mayor (seen with walking stick) coming out under the white flag.

Photo, Imperial War Museum

under Venizelos. But the collapse of Russia paralysed the advance projected on the Salonica front, besides releasing masses of German and Austrian troops for recuperation or for reinforcement of the west, and of Turkish troops for resistance to the British advance in Mesopotamia and on Palestine.

In this last quarter, however, was achieved a triumph of military skill which also made an intense appeal to all western sentiment. The advance on Palestine from Egypt had begun prematurely and with insufficient forces in the spring, when it was held up before Gaza. It was not till the end of October that Allenby suddenly opened his offensive. In the first week of November he had turned both flanks of the fortress and entered it. On

December 11 he was in Jerusalem, over which the flag of Islam had flown since the day when it was captured by Saladin. Nor was the triumph any shock to the orthodox Moslems of Arabia, who had already repudiated both the spiritual and temporal supremacy of the unorthodox Ottoman.

Victories in Asia, however, could exercise little immediate influence on the war in the west, where the German high command was well aware that if Germany was to win the war the thing must be done before the arrival in force of the Americans, and Ludendorff was preparing to win it. Probably it was with the primary purpose of compelling the diversion of French and British troops to Italy that in October the Germans struck hard on the Italian front, where hitherto they had not shown themselves.

SINCE the summer of 1916 the Austrians, absorbed at first by the great Russian offensive, and then in part by threatening disintegration within the empire, had contented themselves with maintaining their own frontiers, while the Italians



GENERAL LUDENDORFF

Erich von Ludendorff, born in 1865, shared supreme command of the German army with Hindenburg in 1916, and organized the extensive use of surprise attack and gas in 1917. He was dismissed in October, 1918.

Photo, E.N.A.



GENERAL ALLENBY

Edmund Henry Hynman, first Viscount Allenby, born in 1861, commanded the Egyptian expeditionary force in 1917-18 and directed the operations in Palestine that defeated the Turks. He became a field marshal in 1919.

Photo, H. Walter Barnett

had concentrated all their energies on a single objective, the capture of Trieste. They had captured Gorizia and bitten their way a little closer, but still the impregnable bastions stood between them and the prize on which their hearts were set. They had accomplished brilliant feats of daring and skill, but the odds of position even more than of numbers were overwhelmingly against them. Also parts of the population—and, more ominously, of the army—were seething with disaffection, the fruits of the new Russian propaganda, and were ready to follow the example of the Bolshevised Russian soldiery which had wrought such havoc with Brussilov's last desperate offensive. Some of those disaffected troops were stationed about Caporetto at the centre of the Italian line—and the Germans had found it out.

It was at this point that they launched their surprise attack on October 24. The Italian centre was pulverised; only swift retreat screened by the most stubborn rearguard actions could save the wings

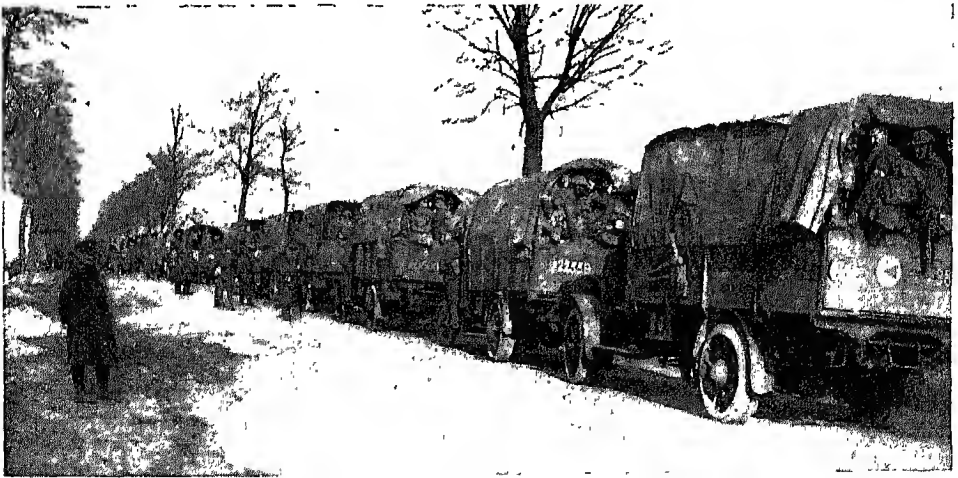
The Great War

from annihilation. They got across the Tagliamento, which rose behind them in a torrent, swollen by a fortunate break in the weather, and gave them some breathing space to reach the Piave, where they made their stand, covering the way to Venice. The German blow had done its work. Without extraneous support the Italians could not hope to hold out long against the Austrians, and British troops, which were soon to be badly wanted on the British front itself, as well as French, were dispatched to the Piave. They might hold out as long as they chose; from the German point of view the important thing was that they should be bottled up in Italy, not fighting in France or Flanders. The Germans left the rest of the Italian campaign to the Austrians.

Russia was already off the board; though her peace negotiations did not finally issue in the ignominious treaty of Brest Litovsk until the beginning of March, there was no need for the Central powers to retain large armies on the eastern front when Russian loyalist generals were struggling in vain to make head against the Bolshevik domination, and the main desire of the Bolsheviks themselves was to be free from the German imbroglio.

As the winter advanced to the spring of 1918 it became quite certain that Germany was preparing for the decisive effort. France believed with entire conviction that the storm would burst upon the French armies, and that the imperative necessity was the strengthening of the lines south of the Somme. The fact was palpable that all the Allied offensives had been robbed of effectiveness by the lack of that co-ordination of effort which characterised all the German movements, because all the German operations were directed as parts of a single plan controlled by a single command—just as in the wars between Napoleon and the coalitions. To counteract that disadvantage was an urgent need; France had for some time been calling for a unified command under a French generalissimo. But it was even more essential that the generalissimo should be the right man, a man equal to the enormous task, a man in whom the British chiefs would have confidence—and that man had not yet been found.

When Ludendorff struck, the French and British views of the military situation were not in complete accord, and the British, though calling for reinforcements which did not come, were reluctantly lengthening southward and weakening



GUARDS BRIGADE RUSHED TO THE DEFENCE OF ARRAS, MARCH 26, 1918

Ludendorff's whole scheme of attack in 1918 is known as the second battle of the Somme, or as the battle of St. Quentin, from the sector where the first smashing blow was delivered on March 21. But the Arras-Vimy area was also involved in the assault, and here the defence held firm, largely owing to the heroism of the Guards in the third defence system before Arras. The Second Brigade is here seen moving up the Arras road by motor lorry.

Photo, Imperial War Museum

their line, in order to shorten and strengthen that of the French. Both the French and British commands were more anxious about the strength of their defences southward and northward respectively than about the centre on the Somme. This, however, was precisely the point chosen by Ludendorff for the blow which was to sever the French and British armies.

On March 21, taking example by Byng's spring at Cambrai in November, with no warning preparation by the customary bombardment, the picked



FRENCH DEFENDERS OF AMIENS

Montdidier, a key position protecting Amiens on the south, is here being defended by French and British troops near Nesle, on March 25, occupying hastily dug pits more like the defences of 1914 than of 1918. The town fell on the 28th, but further advance was stayed

Photo, Imperial War Museum



MARSHAL FOCH

Ferdinand Foch (1851-1929) magnificently justified his appointment to the belated post of generalissimo of the Allied forces on the western front in the great crisis of March, 1918. On

August 6 he became marshal of France

Photo, Imperial War Museum

German troops sprang upon the extreme British right. The Germans had saved Cambrai by whirling up huge reinforcements, but there were no reserves, British or French, to whirl up to the British line. The surprise—aided by fog which concealed the German movement—was complete. The British were flung back reeling, fighting desperately, wherever a stand could be made, for a week across the old battlefields, French or British, while the force on their left was compelled to swing back to keep in touch, and the French also, on their right, succeeded in keeping touch; back to the Ancre line running just in front of Arras and Albert and Amiens.

At more than one point there had been a rift, at still more points the line had been so strung out that it could scarcely have checked a rush; but the drive was impeded by the devastated country; it never thrust clean through; and when the halt in the retreat was called before Amiens, the German attack was vigorously repulsed, though there was another week's hard fighting before it was certain that

The Great War

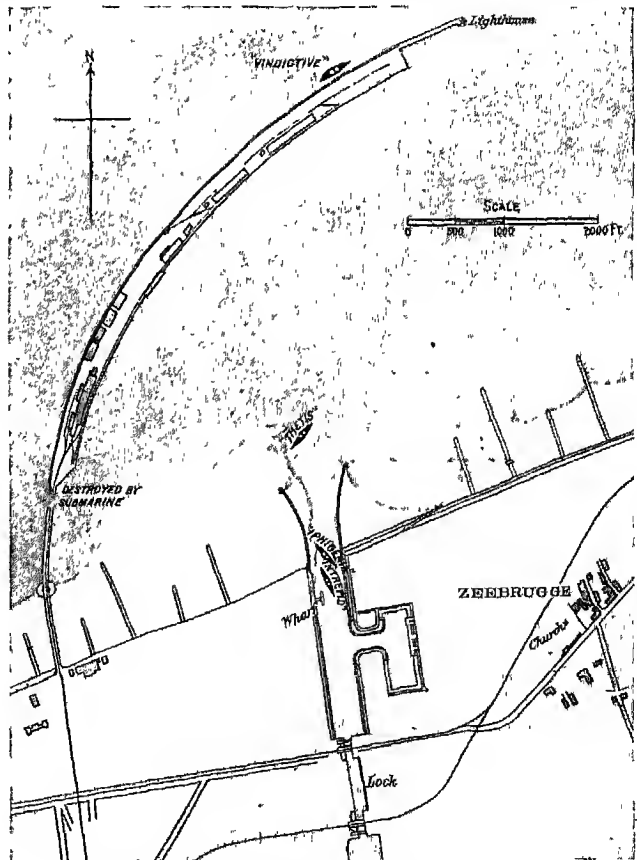
the attempted penetration was held up. The Germans had achieved a striking success—but they had not attained their objective, though the effort was the biggest that had yet been made. Also, before the fighting was finished, the much needed generalissimo had been found—on March 25 Foch was appointed to the supreme command.

If the British right had been saved after the first shattering blow, it was by a serious weakening of the extreme left. A German thrust to Calais would in fact be less serious than a break through elsewhere, but it was in that quarter that Ludendorff directed his next effort, though on a much smaller scale, when the British resistance at the centre had been stabilised. The attack was delivered in accustomed style north of La Bassée; but though it drove heavily forward the British right held at Givenchy. A great bulge was made in the line, but more troops were now crossing the Channel, some French reinforcements also arrived, the Belgians fought manfully, and practically nothing more was gained.

By the end of April the prospect of another heavy offensive against the British front had faded; and during that month the first great contingent arrived from America to finish its training in France. Twelve months had passed since the American declaration of war; when the stream began to flow it was soon swelling into a flood; but the creation of an army five times the size of the British army at the beginning of the war, out of a civilian population which had never been concerned with so much as the prospect of a big war except in one fratricidal conflict, had been a gigantic task.

Germany then must either acknowledge defeat or attempt to achieve a decisive triumph before that stream became a flood; the crash forward in the last week of March, the recovery in a few days of so much ground which the Allies had only won by months of furious fighting at enormous cost, appealed to the popular imagination—not only in Germany—far more than the fact of its actual failure; and Ludendorff staked everything on a last throw.

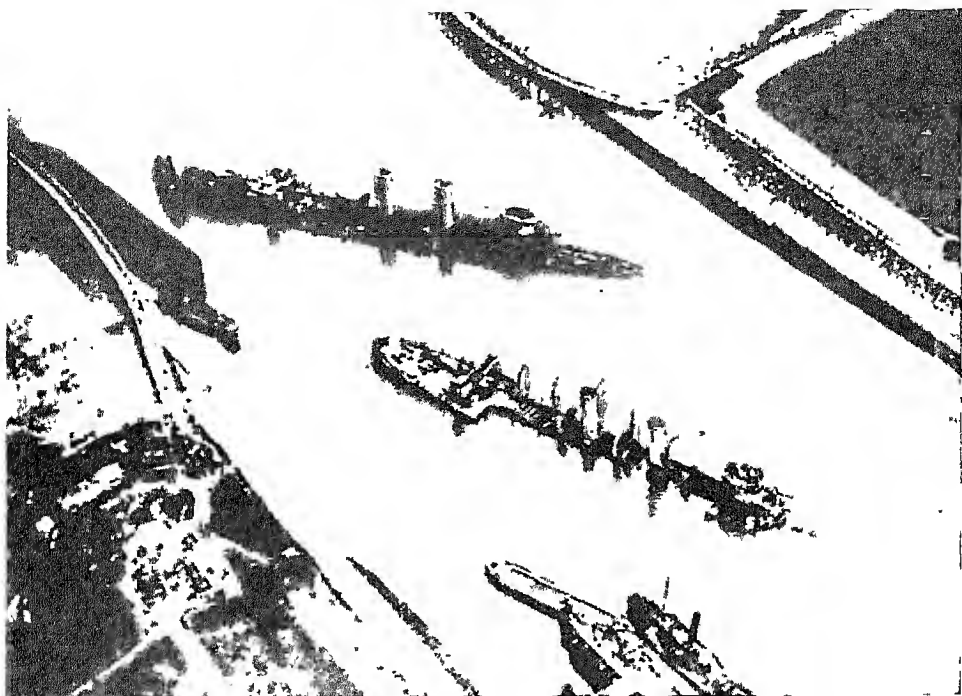
It was perhaps almost as much for the reassurance of English public opinion as for its effects upon the German submarine campaign that a British squadron at the end of April achieved the spectacular but



PLAN OF ZEEBRUGGE AFTER THE RAID

Zeebrugge had been left intact when evacuated by the British navy in 1914, and formed a submarine base for the Germans. On April 23, 1918, an expedition under Vice-Admiral R. Keyes sealed up the harbour with block ships (see photograph in following page). The light-shaded portion of this plan represents foreshore.

Imperial War Museum



AIR VIEW OF THE BLOCK-SHIPS SUNK ACROSS ZEEBRUGGE HARBOUR

Spectacular in its heroism, the Zeebrugge raid was also successful, both in practical results and in its effect on public 'moral.' While *Vindictive*, with the ferry boats *Dafodil* and *Iris*, covered by *Warwick* and destroyers, created a diversion by landing a party on the mole (which the explosion of a submarine under a viaduct had isolated from the land), *Thetis*, *Iphigenia* and *Intrepid* crept in. The first grounded prematurely, but the two last (seen above) were neatly sunk sealing the harbour.

Photo, Imperial War Museum

none the less magnificently heroic feat of sealing up the powerfully defended submarine bases at Zeebrugge and less completely at Ostend.

The German effort in March and April had been a tremendous strain; preparation was necessary before it could be renewed. A month passed, and then on May 27 the storm burst, not again on the British, as had been expected in France, but on the left of the French line, which held positions that ought to have been but were not impregnable. On the first day the French were driven behind the Aisne out of all that Pétain had won during the last year; and the British on their left, who had held their ground, were forced to conform and fall back lest their flank should be turned. On the 30th the head of the German thrust had reached the Marne. Then they set about widening the thrust to right and left. On their left they were held up before Reims; on their right they were successful for a considerable distance to a point where they were again

held up—this time by the first section of the American contingent brought into the fighting line.

The Marne 'pocket' between the Vesle and the Marne was the way to Paris—or to destruction. The weeks passed. Minor attacks, which may have been intended only to draw troops elsewhere, came to nothing, while they drained Ludendorff's resources; and still the Marne flowed between the Germans and Paris. Foch's well concealed preparations were complete when the last German onslaught was launched on July 15 not only in the pocket but on the line to the east of Reims. There it failed completely. In the pocket it crossed the Marne; but Foch's hour had come. On the 17th French counter-attacks began; on the 18th the German troops in the pocket found themselves fighting to cover retreat.

From that day all the German fighting was in the nature of rearguard actions as the line swung back and back until the final catastrophe in November. For there

The Great War

were half a million Americans in France now with thrice the number to follow, and unlimited reserves to swing up to any point where they might be wanted; and the German reserves were exhausted. The coming of the Americans was the arrival of Blücher's Prussians on the field of Waterloo. They won the war precisely in the sense that Blücher, not Wellington, was the conqueror of Napoleon.

At this turning-point of the war the Italian campaign had already degenerated into a merely subsidiary operation for which in itself there was no prospect of Austrian success. The last Austrian offensive on the Piave in June had failed disastrously; the 'ramshackle empire' itself was on the verge of dissolution; and Italian troops could even be spared to play a part in Foch's operations—a sounder course than endeavouring to hasten the Austrian collapse by a precarious offensive. On the Italian front, in the Balkans and in Asia matters continued to be quiescent—that is, no conspicuous military movement took place—until September.

WHEN Foch opened his victory offensive on July 18, its import was guessed by few and its full import was known perhaps only to himself. There was no indication at the moment that he was doing more than successfully repelling an attack that had once more exhausted itself before reaching its objective; as the old drive on Verdun, the two drives into Italy and the recent drive on the centre towards Amiens had been arrested. On that day Mangin delivered an attack west of the Marne pocket that threatened to turn the pocket itself into a trap from which it required no little skill on the part of the Germans to extricate themselves. They did so; in the course of a fortnight the whole salient had been flattened out again, not without heavy losses but without anything verging on a rout at any point. Men were asking not 'What will be Foch's next stroke?' but 'Where will Ludendorff launch the next drive?'

There was no next drive. The French left continued to press the Germans back little by little for a few days; then



GERMANY'S FINAL EFFORT: TROOPS ON THE CAPTURED CHEMIN DES DAMES

Chemin des Dames, the road that gives its name to the summit of the Craonne plateau in the heights of the Aisne, for the conquest of which the French shed so much blood throughout the summer of 1917, was recaptured by the Germans in their last great 'push' of May, 1918. Here a column of German reinforcements is seen moving up the famous road in the early days of June, to their advanced trenches which by then were over the Aisne and up to the Marne.

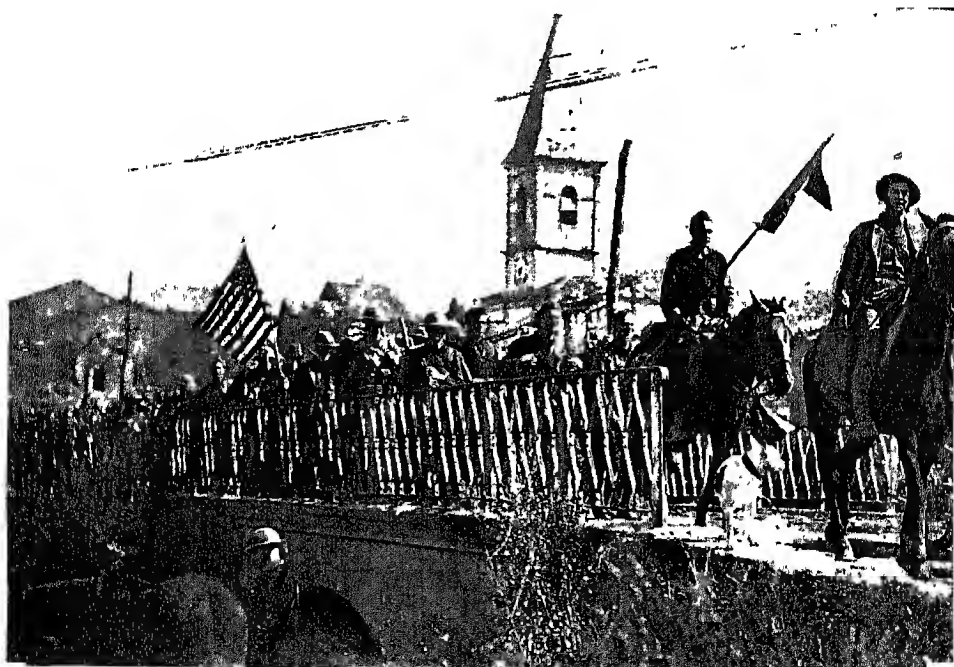
Photo, Imperial War Museum

Chronicle XXXII. 1914-1918

suddenly on August 9 the British right before Amiens sprang forward, towards St. Quentin, its southern flank covered by French troops, against what was perhaps the strongest section of the German line. In a week they had made a material advance, capturing many prisoners and guns. On the 21st the British section on the left of the advance, north of the Ancre, swung forward, while there was no relaxation of the pressure by the British right and the whole French left. Thus the movement continued without pause, the pressure never ceasing along the whole line which had once come into action, but constantly extending to a new sector either on the right or the left. The Germans could never concentrate at any point for a counter-offensive, because to do so would involve weakening at the risk of snapping the line at some other point. By the middle of September the Germans were back on the lines they had held in March, and at points these had been penetrated.

The Americans in action had hitherto been brigaded with French or British troops; now they entered the line as a third national army on the right of the French, compelling the retirement of the Germans on the line south of Verdun which no French attacks had shaken throughout the war. The Americans' capture of the St. Mihiel salient was followed by peace overtures from the other side, but only of a kind that had no possible chance of acceptance from the Allies. The German retreat was no longer, as before, a planned withdrawal to a stronger defensive line; it was a retirement all along the line imposed by the enemy, which would not end until they were expelled from French and Belgian soil or surrendered.

DURING the two concluding months of the war, while the Germans were being forced back mile by mile across the devastated lands, stubbornly contesting every



AMERICAN TROOPS MARCH BACK AFTER CRUSHING THE ST. MIHIEL SALIENT

Long before the Americans were in the line they had helped to solve the pressing problem of reserves; next they fought brigaded with other Allied troops; and finally they took the field independently in the St. Mihiel sector, where they succeeded in capturing the salient on September 12-13, 1918, as part of Foch's general scheme of advance. Here a body of them is seen passing through the French village of Nonsard, flags flying, on return from the victory.

Photo, Imperial War Museum



FOUR YEARS AFTERWARDS : MONS RECAPTURED BY THE CANADIANS

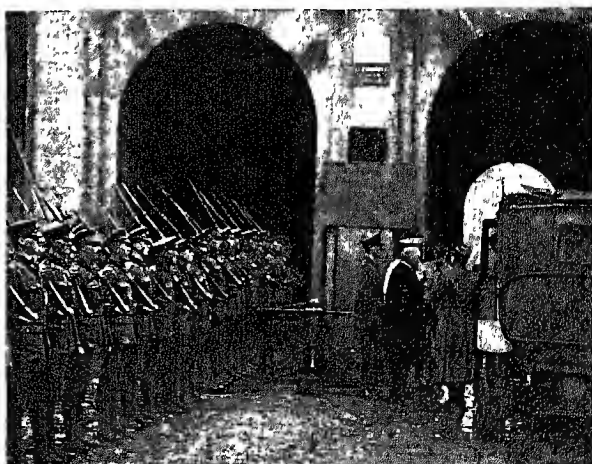
The Belgian town where the British troops first saw action in 1914 was also the farthest advanced point occupied by them in the pursuit of 1918 when the Armistice came into force at 11 o'clock on the eleventh day of the eleventh month. On the 10th the Canadian Division had reached Mons, which was fairly strongly held, but an enveloping movement followed by an attack from two sides ensured its fall, and on the following morning they entered behind the pipes of the Canadian Scottish.

Photo, Imperial War Museum

step, their allies in every quarter were crumpling up. Even the Bolsheviks found a new enemy in the host of Czecho-Slovaks who had fought reluctantly in the Austrian ranks, had become Russian prisoners of war by thousands in the numerous Austrian defeats, and had then enthusiastically taken up arms on the side of their captors for the overthrow of the Austrian tyrant. They had held fast to their new loyalty (rooted in their immemorial hostility to the Teuton) when the Bolshevised Russian troops mutinied and fled, and now they attached themselves to the independent loyalist government which was seeking to establish itself in Siberia. They did not in fact crumple up the Bolsheviks—who were a useful bulwark to the Germans but not their official allies—but did add to their difficulties.

The Balkans went first. Since the abdication of King

Constantine Greece had been unequivocally Venizelist. Nevertheless, no effective moves had been made until on September 15 the Serbs and the French, supported on their right by the British, launched their attack on the Bulgars. No effective help



LILLE AT LAST RESTORED TO FRANCE

It was a blow to France when Lille, the manufacturing centre, fell in the early days of the war. The town was recaptured on October 18 (this photograph shows the arrival of President Poincaré, welcomed by General Birdwood), but its prosperity had been temporarily ruined by destruction of factory plant.

Photo, Imperial War Museum

came from the Austrians. The Bulgar defences were pierced, their whole front collapsed, and on the 30th the French commander was able to dictate an armistice on his own terms. Bulgaria being lost, the Austrian hold on the Balkans was lost. The Turks were left alone.

The Turks were not yet gone, but they were going; Allenby in southern Palestine had bided his time to deal an absolutely decisive blow. By a surprise attack consummately planned and consummately carried out he practically annihilated the entire Turkish force in Palestine in the three days' fighting (September 19 to 21) comprehensively known as the battle of Megiddo, and proceeded to the conquest of Syria. Damascus fell on the 30th, then Beirut, and then Aleppo (October 26). Meanwhile the Mesopotamian army had been pushed up the Tigris; and after a battle which lasted for a week the Turkish army on the Tigris surrendered and an armistice was signed (October 30) which put the Allies in possession of the Dardanelles and the Bosphorus.

Austria remained. She had been hustled out of the Balkan peninsula, the South Slavs were joining Serbia, the Czecho-Slavs were threatening her, Hungary was exhausted; but through September and for three weeks of October the

Italian front was stationary. If Italy was to reap, across the Adriatic, any of the coveted fruits of the imminent Austrian collapse she must precipitate it by her own action. Italians and British opened the attack on October 23, Italians and French almost simultaneously, and on the 27th the Austrians were in flight. On November 3 they signed an armistice dictated by the Italian commander. Germany stood absolutely alone, and she was fast in the toils.

Final Operations of the War

THE advance of the Allied line had been continuous. The Germans had exhausted their reserves in the last offensive, at the moment when the available forces of the Allies were doubled. The British had penetrated the Drocourt-Quéant line early in September; at the end of the month they were through the Hindenburg line, the Belgians were in Dixmude, and the French were on the point of entering St. Quentin. By the middle of October the whole German line farther south had been pushed back on the Meuse by the northward thrust of the Americans and over the Aisne by the French, and Cambrai had fallen to the British with American support. In the northernmost sector the attack of Belgians, French and British compelled the abandonment of the Belgian coast, and the evacuation of Lille and Douai on the 17th.

Ludendorff's resignation on October 26 was significant. In the first week of November the American push northward down the Meuse was greatly accelerated; on the 7th they were in Sedan. The French were pressing hard on the centre; on the left the British captured Valenciennes on the 2nd and then drove forward in the decisive battle of the Sambre. On the 9th they were over the Scheldt. The fleet at Kiel was in mutiny, revolution was breaking out in Berlin, the Kaiser was safe on neutral territory, and a socialist provisional government was set up. In the early morning of November 11 the Canadians broke into Mons as the Germans were submitting to the crushing armistice terms dictated by the Allies. The last shot had been fired. In the military sense, the Great War was ended.



WHERE THE ARMISTICE WAS SIGNED

The clearing in the forest of Compiègne where the trains bearing Marshal Foch and the German plenipotentiaries met to sign the Armistice was long marked by this simple notice, only replaced by permanent memorials in 1922.

SCIENCE AND WAR

Has War advanced Scientific Progress and will
Science increase or lessen the Horrors of War?

By Maj.-Gen. SIR GEORGE ASTON K.C.B

Lecturer on Naval History, University College, London; Author of *Sea, Land and Air Strategy*, *War Lessons New and Old*, etc.

THE mutual reaction between science and war is of considerable importance to the human race, but before such a subject can be approached it is necessary first to decide whether war itself is a 'science' or an 'art,' because these terms have both been applied almost indiscriminately by writers on warfare. Clausewitz, in trying to solve this problem of nomenclature, maintained that it was impossible to classify war either amongst the arts or amongst the sciences. He held that it belonged rather to the province of social life, being a conflict of great interests settled by bloodshed, and differing only in that respect from other forms of human activity that come within the social province.

'It would be better,' he wrote, 'instead of comparing war with any art, to liken it to business competition, which is also a conflict between human interests and activities; and it is still more like state policy, which again, on its part, may be looked upon as a kind of business competition on a great scale. Besides, state policy is the womb in which war is developed, in which its outlines lie hidden in a rudimentary state, as the qualities of living creatures do in their germs.' We cannot do better than to accept these views, which carry conviction, as our starting point in approaching the subject. Let us therefore treat the relationship between science and war on the assumption that war is a form of activity, in social life, that harnesses all sciences, and all the arts, to its chariot.

The general question of the effect of war upon the progress of the human race was dealt with from the historical point of

to Bernhardt and other German 'militarist' writers in his *War and Human Progress*, published in his collection of *Essays and Addresses in War Time*. Its connexion with what is generally known amongst us as 'art,' and the question whether art has been stimulated during periods of warfare, is dealt with in Ruskin's writings, to which no adequate rejoinder has hitherto been forthcoming. There remains, however, the

question whether an im- General effect of
petus has been given War on Progress
by war, especially in
modern times, to the progress of scientific discovery and to industries which are thereby affected. It would also be well for us to determine whether warfare of the future is likely to acquire more menacing aspects with the aid of applied science. A wealth of evidence, derived from modern experience, enables us to base certain conclusions upon lessons taught by history.

The progress of scientific discovery has been influenced, in one direction or the other, by several factors that result from warfare. It can, for instance, be said that brilliant scientists, while engaged in important research work, have been killed in action or have died of wounds or disease as the result of war; and that this cause has retarded scientific progress. On the other hand, we are told that such losses have been few in number, and that those who have thus been lost to science have soon been replaced by others. Then, again, it is a constant complaint among scientists that research work lacks a sufficiency of financial support in time of peace, while in time of war it is financed lavishly by governments of belligerent

example having been set by Napoleon—the point has been grasped that better use can be found for scientists in time of war than to employ them as food for powder, and the same can be said of other countries.

One of the most important incentives to scientific progress, especially in connexion with industries, has been the isolation of certain nations from their neighbours during war periods. This isolation has sometimes compelled scientists

to devise expedients to
 Incentive force enable them to dispense
 of isolation with the raw materials
 generally in use for pro-

ductive processes; as, for instance, those needed to produce chemicals on a commercial basis. The alkali industry of France (see page 4136) is an outstanding example. Others that are germane to the point could be quoted from the experiences in 1914-18 of the Continental powers that were cut off, by sea blockade, from their usual access to foreign materials, and compelled to discover 'substitutes' for certain normal products that are looked upon as necessities under present-day conditions of industry and agriculture. Several products of nitrogen come within this category, and rapid progress in the extraction of nitrogen from the air resulted from war conditions. In earlier periods we can take note of the impetus given by the discovery of various explosives, having their origin in war, to many great industries; and in more modern times, if we consider industries in general, we can cite Japan to prove the influence of war upon the spread of science, and upon the rate of progress in industries and in manufactures dependent thereon.

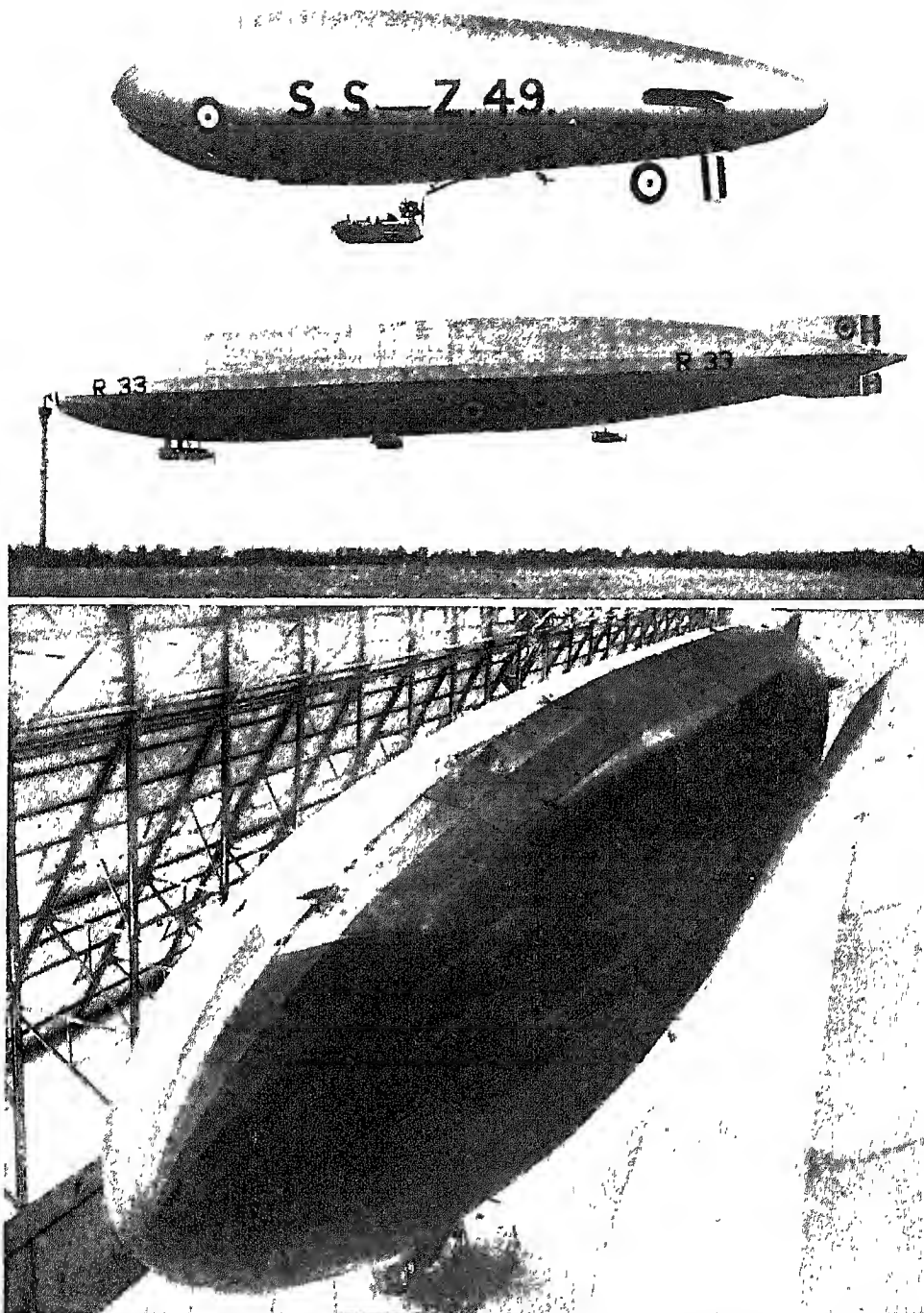
Here, referring for guidance to the publications brought out under the auspices of the Carnegie Endowment for International Peace, we come across various volumes, by learned Japanese in responsible positions, demonstrating in detail the extent to which industrial progress in Japan has resulted almost entirely from participation in warfare. One of these authorities (Uspisaburo) tells us that 'industries in Japan are mostly either the direct or the indirect product of military industry,' and 'that is not all.

The advancement of science and arts, the diffusion of education . . . in these matters also the military industry in Japan has been an important factor.' It should, however, be remarked that, according to the same Japanese authority, military industries have now ceased to advance industrial progress in Japan. The writer based the opinions just quoted principally upon events up to the year 1905, which marked the conclusion of the Japanese war with tsarist Russia, and not to the same extent upon later events like the Great War of 1914-18, to which we will now revert.

In 1914 the science of human flight or aeronautics was in its infancy, and progress therein had been very slow during the preceding years. The rapid progress that followed was the direct result of war experience. War requirements produced machines specially adapted to such purposes, but since those days there have been rapid developments in civil aviation. Progress in such machines and in the achievements of their pilots is constantly being reported, and it may be said, without fear of exaggeration, that

aviation, as we know it, had Development
 its origin in warfare. This of Aviation
 is the most spectacular,
 though possibly not the most important,
 example of the impetus that has been
 given by war to scientific discovery. When
 studying the figures that follow, it is
 necessary to bear in mind that individual
 types of aircraft, like classes of warships
 and merchant vessels, represent com-
 promises in design, varying with the
 functions that they are to perform. The
 qualities described have not all been
 combined in any individual type of
 machine. Abnormal development of one
 attribute entails the sacrifice of others.

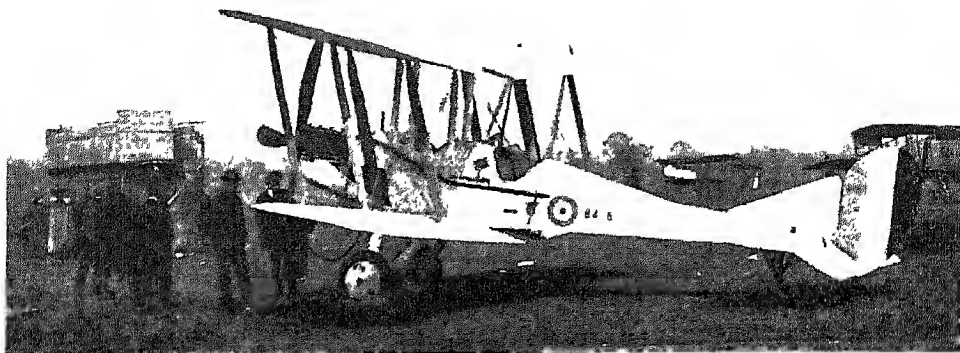
Taking lighter-than-air machines first, we find that dirigible airships, which in 1914 could lift weights of about 8,000 lb., in addition to their crews, in 1926 could lift 40 tons net (80 tons gross) into the air. The cruising period spent in the air rose from 30 to 78 hours; the speed from 30 to 75 miles an hour; the distance travelled in the air without alighting from 960 to considerably over 5,000 miles; and so on. Owing to their vulnerability it may be said



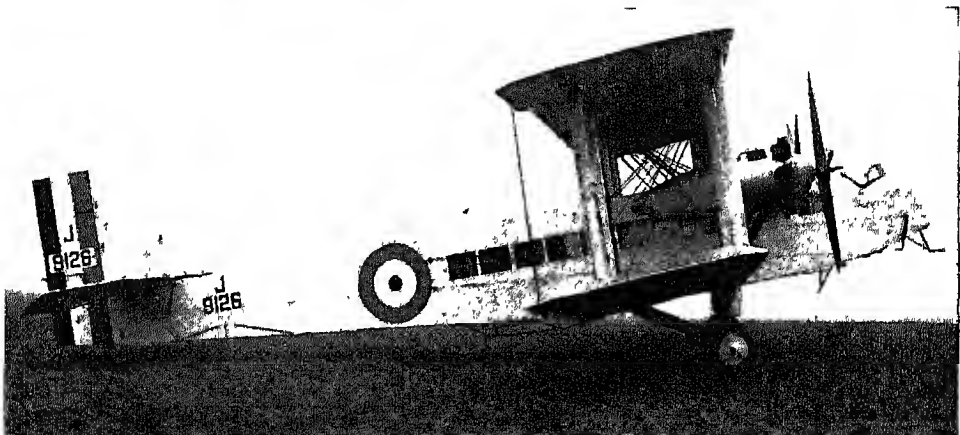
War stimulus brought about the development of airships shown in this page. Top: Non-rigid dirigibles, popularly termed 'blimps,' were used by the British Admiralty for scouting from the beginning of the Great War; the S.S. Zero class, evolved in 1917, weighed 4,500 lb. with crew and equipment. By the end of the war the rigid airship (centre, the R33, with loaded weight of about 59 tons and length of about 640 feet) had been evolved from the German Zeppelin type, of which two specimens surrendered to the British are seen in a hangar at the bottom.

PROGRESS IN AIRSHIP CONSTRUCTION SINCE THE BEGINNING OF THE WAR

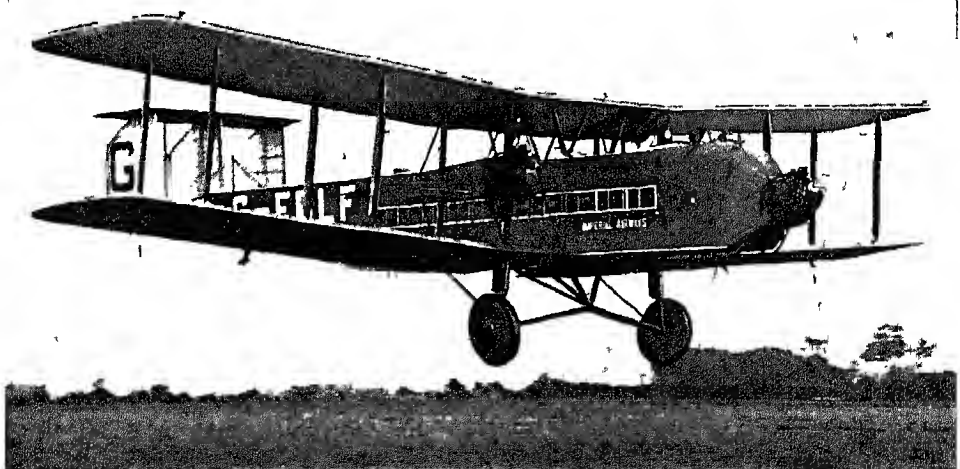
Photos: Top, Royal Air Force, Crown copyright reserved; others, courtesy of 'Flight'



The BE2C was designed at the Royal Aircraft Establishment, Farnborough, and built in large numbers by private firms during the war. These machines carried pilot and observer, and later were used for offensive purposes, when they carried small bombs.



The post war Handley Page Clive, with two Bristol Jupiter engines, is a troop carrier capable of transporting twenty-three men with full equipment. The total loaded weight is 14,500 lb.



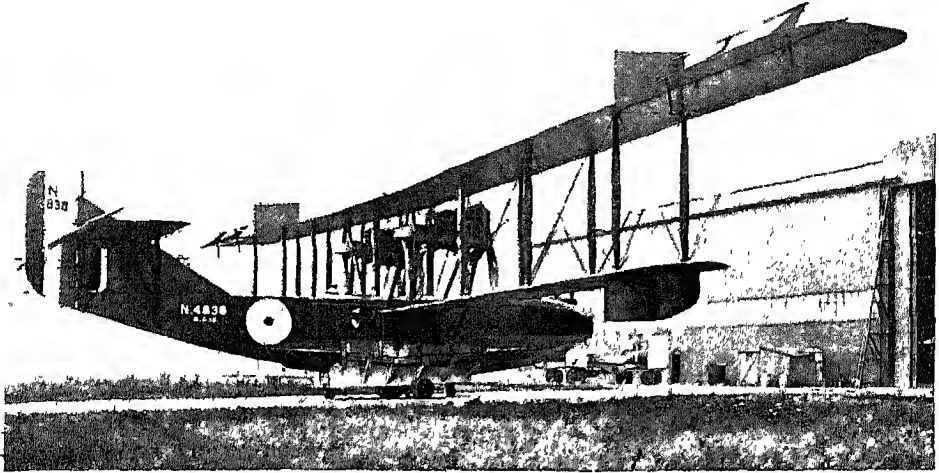
Possessing three Armstrong Siddeley Jaguar engines of 400 h.p. each, the Armstrong Whitworth Argosy air liner of Imperial Airways, Ltd., will seat 18 persons. Unlike the two examples which appear above it, the primary purpose of this model is to serve the needs of peace. The accelerated development of aircraft from the war models at the top of the page to the large passenger-carrying aeroplane of 1928, with its unfailing regularity of service, was mainly due to war-time experience.

BRITISH FLYING MACHINES OF WAR AND PEACE

Photos, courtesy of 'Flight'

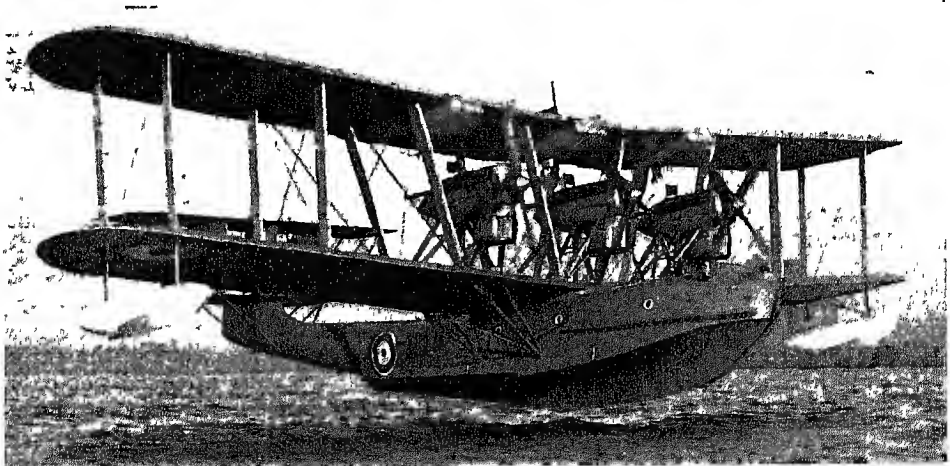
that lighter-than-air developed less rapidly than heavier-than-air machines (aeroplanes, seaplanes and flying boats) as the result of war conditions. In 1914 aeroplanes lifted about 1,500 lb in addition to the pilot, in 1926 they had lifted over 13,000 lb, and seaplanes about 4,400 lb. The time spent by an aeroplane in the air went up between the same dates from a maximum of 16 hours to over 48 hours,

the corresponding figures for seaplanes being 4½ hours and 28½ hours. The maximum speed attained by aeroplanes rose from 112 miles an hour to 278 miles an hour, and by seaplanes from 80 to 246 miles an hour. The distance covered by aeroplanes without alighting rose from 1,050 miles to nearly 3,000 miles, and by seaplanes from 240 to nearly 1,000 miles. The vertical climbing speed of



As used in 1917, the F 5 type of flying boats had a loaded weight of 12,268 lb. The one here illustrated is a later model, with duralumin hull, but otherwise only differs in details.

Photo, Royal Air Force, Crown copyright reserved.



The great progress made in seaplane construction is illustrated by a comparison of this British flying boat with the earlier one above it. A masterpiece of design and construction, the Blackburn Iris II class possesses three Rolls-Royce Condor engines of 650 h.p. each, and has a total loaded weight of 27,000 lb. Equally at home on sea or in the air, no limit can be set to the potential utility of this type of aircraft, whether for military or for peaceful and commercial purposes.

RAPID DEVELOPMENT OF THE FLYING BOAT SINCE 1917

Photo, courtesy of 'Flight'



TRIUMPH OVER DIFFICULTIES

At the Queen Mary Auxiliary Hospital at Roehampton, devoted exclusively to men who had lost a limb, artificial limbs of astonishing ingenuity were invented. This man is giving an exhibition of running with an artificial leg.

Photo, Record Press

heavier-than-air craft also rose in due proportion, and the maximum height attained above the earth's surface, which in 1914 was 19,600 feet for aeroplanes, had reached in 1926 nearly 41,000 feet for aeroplanes and nearly 30,000 for seaplanes.

These few statistics suffice to indicate the great advances, having their origin in war needs, that were made in the science of aeronautics up to 1926. Civil needs have since caused much further progress. Similar conditions apply to submarine navigation. There, too, we find scientific progress accelerated in response to the war stimulus; and we must also take account of the impetus thereby given indirectly to other branches of science, as, for instance, to acoustics. The need to detect the approach of aircraft and of submarines, and also to judge the direction and distance of hostile guns or submarine explosions by sound-ranging, led to great advances being made in that science. Professor A. O. Rankine has written that 'the increase in our knowledge of the subject of acoustics during recent years

has been largely associated with war conditions which prevailed from 1914 to 1918. As a consequence of the war the development of this science has been abnormal.' He proceeds to indicate the effect of this development, and Vice-Admiral Sir John Parry, hydrographer to the navy in the Great War, further explores the subject and shows how, when the war was over, inventions that had been utilised during its progress were turned to purposes of peace, more especially to deep-sea sounding.

It is difficult to estimate the extent to which war conditions accelerated progress in wireless telegraphy and telephony, though there is little doubt that expenditure on research and practical experience in the field has been one influence, not to be ignored, upon discoveries in this as in other sciences. It is at least certain that during the war years vast experience was gained in the practical uses of wireless telegraphy that could not have been gained under such varied conditions in normal times (compare page 4836). We can also attribute much of the rapid progress in wireless telephony, and in direction-finding, to the stimulus of war needs; the effect of these upon broadcasting and upon the safety of air and ocean travel needs no further emphasis. During the Great War experiments were made with a sound-reflector for listening to different types of aeroplane and submarine by means of a microphone placed at the centre of a concave mirror.

In the realm of surgery we have the authority of Sir Robert Jones, president of the Association of Surgeons of Great Britain, for an estimation of the influence of war **Orthopaedics and Plastic Surgery** experience upon orthopaedic methods. The

treatment of fractures during the early part of the war was attended not only by unnecessary deformity, but also by a high mortality. In compound fractures of the femur an initial mortality of 80 per cent, was ultimately reduced to 25 per cent. Knowledge gained has formed the basis of efforts to place the tending of fractures upon a different basis with a view to minimising the disabilities of industrial accidents.

The war supplied exceptional opportunities of acquiring an improved technique in certain reconstructive operations that have an important bearing upon civil surgery. Among these stand prominently the treatment of injuries to certain nerves, the transplanting of tendons, bone grafting and the treatment of bone infections. Experience with a vast number of complete nerve lacerations enabled a finished operative technique to be built up, largely wanting before the war; and many misconceptions were corrected. A whole new science of plastic surgery was elaborated. In the treatment of cripples, again, a notable advance followed war experience; and a further instance can be given in the evolution, under war influence, of the artificial-light treatment for tuberculosis of bones and joints and for rickets. The thought naturally occurs that the correction of misconceptions in remedial treatment has been dearly bought at the cost of millions of dead and tens of millions of disabled, unless the assumption can be made that the older remedies tended rather to kill than to cure.

To our first question, whether an impetus has been given by warfare—especially in modern times—to the progress of scientific discovery, and to industries

that are thereby affected, the reply is therefore clearly an affirmative. If we had delved more deeply

into the records of the past we should have discovered the extent to which machinery and the use of metals for supplying so many of our needs can trace their origin to the days when men first learned the superiority of metals over other materials for the making of weapons and armour. In more recent times we have taken note of a few discoveries in chemistry and in physical science, selected from a large number, that have been hastened by war, even if they did not owe their initiation altogether to that incentive. Whether or not the human race would have been benefited if these discoveries had come about more peacefully, and had thus been somewhat delayed, is a different question. Experts hesitate to pronounce an opinion; but some leading scientists maintain that their

own sympathies would have favoured a more peaceful, though slower, development of scientific discovery.

War, we have found, has speeded up movement on the surface of the earth and sea, and progress in the sciences of flight and of submarine navigation has been accelerated in response to the war stimulus. Not only in movement, but in other matters

Post-war use of
war-taught skill

—such as communication by wireless, chemistry, physics and industries dependent thereon, as well as in the art of the physician and surgeon—we find that war, through the stimulus of fear or of stern necessity, has speeded up the progress of human achievements. Skill in all such matters can become either a blessing or a curse to mankind, according to the purposes to which it is applied. All that the scientist with prophetic vision can tell us about the future has been summed up briefly: 'Leagues of peace will have more arguments, and generals will have more weapons.'

Mention has already been made of the argument, employed by some scientists, that one reason why warfare stimulates scientific discovery is that it stimulates governments to provide resources for research, and that it thus promotes the material well-being of mankind. Here Lord Balfour's remarks, in his introduction to the report of a research sub-committee of the British Empire Conference of 1926, are significant:

The material well-being of mankind may be diminished by many causes—e.g. international wars, domestic disorder, industrial disorder, industrial disputes—but . . . there are only two causes that can increase it, namely, better natural sources of supply and better methods of turning these sources to account.

He adds that we must rely in an increasing degree upon the second of these causes, and that we must turn for aid to applied science. If that advice is followed by 'leagues of peace,' it will mean better endowment of research without the war impulse, and therefore more rapid progress in scientific discovery in time of peace. The argument that the human race can benefit by war through the progress in

the sciences derived therefrom would then lose all weight, and 'international wars, domestic disorders and industrial disputes' might be recognized as reducing, but never increasing, the material well-being of mankind.

Meanwhile, realizing how long it takes for reason to prevail in international politics, it will be well to turn to the other branch of our subject, to the question whether wars in the future, with the aid of applied science, are likely to acquire more menacing aspects.

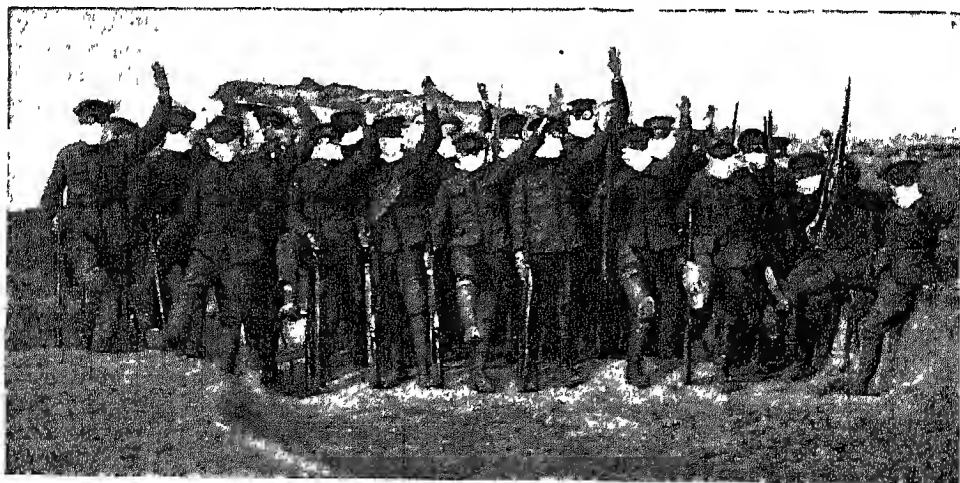
The purely logical view of warfare is that maintained by Clausewitz. War being an act of violence, the surest road to victory is to place no bounds upon the violence employed. His doctrine was embodied in the war book that was in force in Germany in 1914, in the words:

By the means of conducting war is to be understood all those measures which can be taken by one state against another in order to attain the object of the war, to compel one's opponent to submit to one's will; they may be summarised in the two ideas of violence and cunning.

The argument has been freely used that the greater the violence, and the more deadly the weapons employed, the shorter the war and, therefore, in the long run, the more merciful.

Little evidence in support of this theory can be derived from the war of 1914-1918, a struggle that caused a holocaust of protracted horror and widespread sacrifice, only brought to a conclusion by a process of exhaustion involving whole nations, both victors and vanquished, and causing an aftermath of suffering, distress and economic unsettlement. This leads us to the argument, now frequently advanced, that, while nations in the early stages of past wars have used their fighting forces to defeat those of their enemies, the ultimate object has always been to obtain advantageous terms by compelling a hostile nation to concede some point in dispute; and that scientists may devise methods of achieving this ultimate object by direct action against the non-combatant population, especially when concentrated in industrial areas.

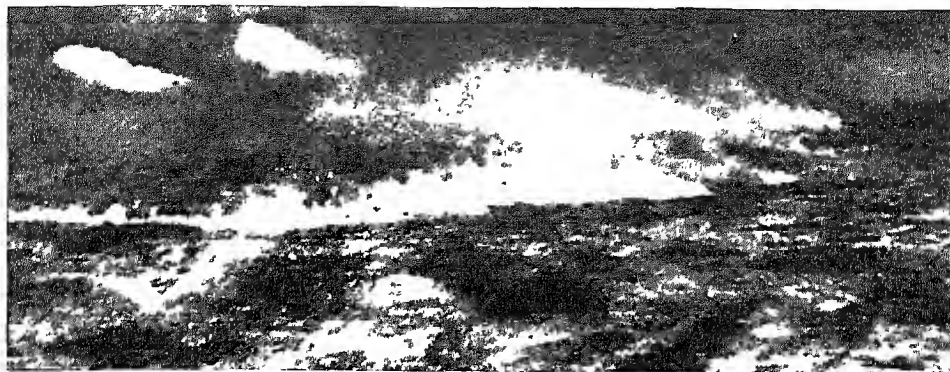
Since we cannot foretell with any certainty the date of the 'next war,' or the trend, in the meanwhile, of scientific discovery, it is impossible to predict the nature of the weapons which nations will employ against each other. Speculation is rife on this subject, especially about the prospects of explosives and harmful gases being used by airmen, not only against combatant forces, but also against



EARLIEST RESPIRATOR USED AS PROTECTION AGAINST POISON GAS

As first devised after the German surprise use of chlorine at Ypres in May, 1915, the gas mask consisted of a flannel bag fitted with mica goggles, and large enough to envelop the head and be tucked in round the neck under the tunic. The flannel was treated with a solution of sodium carbonate, which combines with free chlorine and purifies the air passing through. This was the first photograph taken of British troops equipped with this form of respirator. Its life as a gas neutraliser was limited.

Photo, Central News



EARLY GAS ATTACK : A CLOUD WIND-BORNE TOWARDS 'PLUGSTREET' WOOD

Chlorine gas—the first poison gas used in the Great War—was stored under pressure in cylinders in the trenches and discharged as a cloud against the enemy, the wind carrying the cloud along. Later, phosgene was employed in the same way, and was also used as a shell charge. Chlorosulphuric acid was used to some extent in smoke pots, and was sometimes mistaken for a defensive smoke screen. Gas-cloud discharges largely depended for their efficiency on meteorological conditions.

Photo, Imperial War Museum

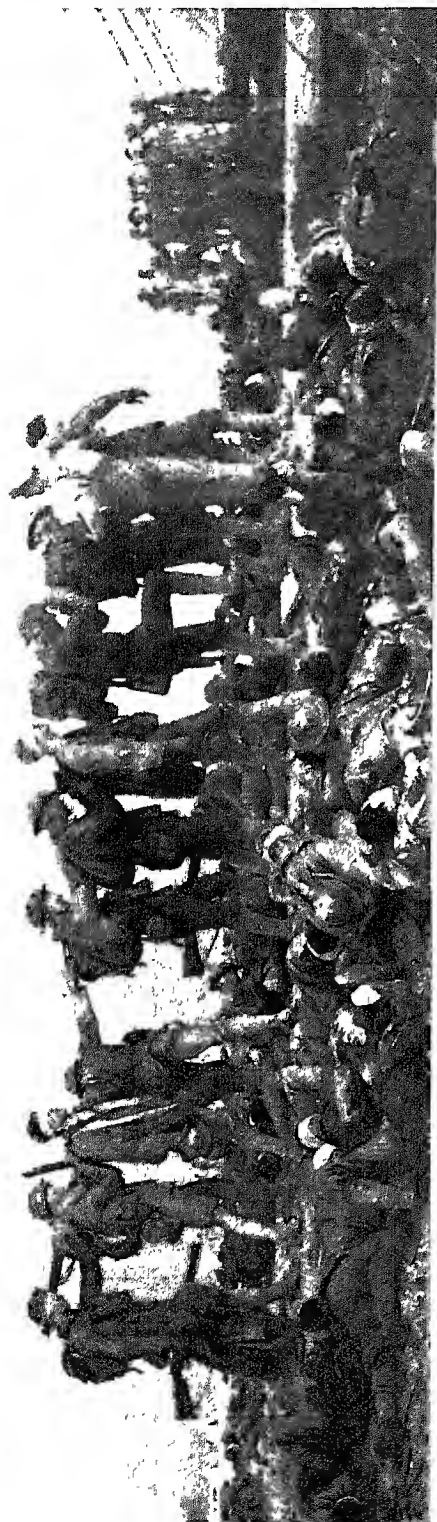
a non-combatant population, and we are at once faced with the question of the extent to which international covenants and agreements are likely to act as a deterrent. Here we are reminded that at The Hague in 1907 the leading belligerent powers of 1914 agreed not to employ projectiles of which the sole object was to diffuse asphyxiating or harmful gases, and also forbade the bombardment of defenceless towns by any means whatsoever.

The extent to which these covenants were looked upon as binding by the belligerents is now a matter of history. When war broke out no nation embarked upon the contest with the intention of breaking these engagements, and no nation had prepared for 'chemical warfare,' either in attack or in defence. It was not until the definite failure of the original German offensive of 1914, upon which such high hopes had been built, that a serious attempt was made to obtain a victory by using gas, projected from cylinders on the ground, although gas shell containing an irritant substance were used ineffectively (at Neuve Chapelle) as early as October, 1914. Chlorine gas, discharged from cylinders, was used on a large scale by the Germans at Ypres in April, 1915. In the spring of 1916 the French retaliated by using shell containing phosgene in the defence of Verdun. In April, 1917, the British used shell containing lachrymatory substances in an attack in the Arras area. In July of the same year the Germans introduced mustard

gas, an insidious agent that remains in the form of a liquid at low temperatures. From 1917 onwards, owing to increased supplies, gas became a serious factor.

Mustard gas was responsible for most of the gas casualties in the war. It can remain on the ground as a liquid, giving off, for a long time, vapour with a slight smell producing no immediate effects to indicate its dangerous nature, while contact with the liquid itself produces painful and slow-healing burns. Experience proved that a persistent gas of this nature, in sufficient concentration, could compel troops to evacuate an area which they wished to occupy. The eyes and lungs can be protected by respirators, but these must be removed to eat or drink, and protection of the skin from such harmful substances as mustard gas in its liquid form offers a difficult problem. Protective clothing is less efficient than respirators, and forms a great handicap to movement.

The general situation affecting gas warfare is that, in spite of international covenants, it is a matter of common knowledge that the leading nations are conducting experiments both in chemical substances for use therein and in protective measures. A leading British expert (Brigadier-General Sir H. Hartley) tells us that it is difficult to compare the effect upon moral of gas with that of other weapons, but that it is unquestionable that the ill-understood danger, the constant strain of watchfulness, the fear of new gases with more painful properties



CASUALTIES FROM MUSTARD GAS ON THEIR WAY TO THE DRESSING STATION: A FAMOUS WAR PICTURE

Mustard gas was first used by the Germans in July, 1917, and caused terrible suffering among the British troops, for whom no protection had yet been devised against that particularly insidious and persistent danger. Sargent's picture, Gassed, represents the plank road between Doullens and Arras in August, 1918, with files of men temporarily blinded by mustard gas being led by a hospital orderly to the dressing station at Le Bac-du-Sud, outside Arras, which hundreds of their comrades, already attended to, are waiting in distress and exhaustion to be sent back from the front line.

Photo, Imperial War Museum

and the feeling of confinement when wearing a respirator must tend to weaken the spirit of a force, especially of one with little experience of gas.

Like all weapons gas has its limitations, and these are often not sufficiently realized. For every gas there is a minimum effective concentration. Lachrymatory (tear gas) vapours blind the eyes in a few seconds where present in the proportion of one part to from two to five million parts of air. Phosgene causes a gas casualty after exposure of from one to two minutes to a concentration of one part to fifty thousand. Mustard gas causes eye or lung casualties after exposure for an hour to a concentration in the proportion of one part to a million of air, and so on. Although this seems very deadly, an immense quantity of gas is needed to produce even these concentrations over a large area, even very temporarily. A rough calculation has been made that, with a non-persistent gas like phosgene, 800 tons would have to be dropped on Paris to produce a lethal atmosphere, and even then, if a wind were blowing, the gas would be quickly dispersed. Another estimate, with persistent gas, puts the amount to contaminate a square mile effectively at 25 tons weight of mustard gas.

The speed of the wind and the state of the atmosphere greatly affect the concentration obtained from a given amount of gas, and no other weapon is influ-

enced to the same extent by weather conditions. With a wind blowing at over twelve miles an hour gas disperses so quickly that even with persistent types there would be a great decrease in efficiency. There must therefore be much uncertainty about its employment, and meteorological forecasts will play an important part. General Hartley thus summarises the situation :

There is no lack of prophets and on the whole the experts, who realize more clearly the difficulties and limitations involved, and from their familiarity perhaps pay too little heed to the influence of gas on moral, make more modest claims than other writers who contend that gas will be the most powerful weapon of the future. Used at the right place and at the right moment, and in adequate amount, it offers brilliant possibilities, but theoretical victories might well be won with other weapons on the same assumption.

We find here an important reference to the difference of mental attitude between



TYPE OF GAS HELMET USED IN 1918

In the box-type respirator the mask is connected by a flexible tube to a box suspended over the breast, and containing layers of absorbent charcoal and pumice impregnated with sodium carbonate and hexamethylenetetramine.

Photo, Imperial War Museum



MASKED MACHINE GUNNERS IN ACTION

To counteract the effects of phosgene gas the British troops were supplied with improved gas helmets impregnated with sodium thiosulphate and sodium phenate ; a valve through which the exhaled air escaped eased the discomfort of wearing them for long periods. This photograph was taken in July, 1916, near Ovillers.

Photo, Imperial War Museum

the experts and the ignorant, and our investigation of the question whether the wars of the future will be more menacing than the wars of the past leads us into difficult problems of human psychology. Experts in chemical warfare are few, the ignorant are many, and it is upon the moral of vast masses of them that success in a great war must ultimately depend. Rumour has a more important influence than reality has upon war psychology. It will be realized that the experiences quoted above were all based upon the effect produced upon disciplined troops, with whom it was not difficult to ensure the adoption of defensive measures against the effect of gas ; also that, under the conditions attendant upon the trench warfare of 1915-18, the troops were occupying the same areas for long periods. Such conditions were ideal for effective gas warfare. It may be that, in future wars, the issues will be determined by armies rendered more mobile by mechanisation, but here again we must avoid speculation on insufficient evidence.

Even mechanised armies will, however, depend for continuous movement, as ships do, upon supplies of fuel and upon facilities for maintenance and repair. Bases or depots containing these requirements will be stationary targets, open to gas attack from the air if considered more effective than similar attack by high

explosives. Such depots are usually situated at railway centres, which are generally surrounded by densely populated industrial areas. It is clear that such military objectives as fuel dumps and repairing shops, upon which mechanised armies are dependent for movement, would be legitimate objects for attack from the air by bombs containing high explosives or incendiary compounds and, owing to the greater permanence that can be claimed for the effect of persistent forms of gas, there might be a strong temptation to employ them for the same purpose. If such a policy were to be adopted, the wars of the future would certainly assume a more menacing aspect for the population, including women and children, of such areas. Similar conditions apply to the neighbourhood of naval bases on the sea coast, and of aerodromes.

In such circumstances it is not possible to improvise hastily any adequate measures for gas defence. Education, as scientists maintain, is the best means of allaying panic and mystery, but it has been proved that education in itself does not suffice. Discipline is required, and also food and effective organization, before protective measures can achieve their purposes of avoiding casualties, allaying panic and preserving moral. The difficulties in organizing and applying disciplinary measures to a crowded industrial population are notorious, and they vary in degree with national and racial characteristics.

So far our argument has touched only the fighting forces and the civilian population residing in the immediate neighbourhood of their bases and

Wide distribution of munition works magazines. There remain the factories for producing the vast

amount of technical equipment demanded by modern fleets, armies and air forces. In pre-war days an inquiry was conducted into the extent to which the destruction of various commercial establishments and factories, large and small, and devastation by fire or by enemy action in different industrial areas would affect the efficiency of the fighting forces. The results were startling. Nearly all industrial towns were found to be honeycombed with objectives of military import-

ance, in that they produced some form of technical equipment, or parts thereof, that could fairly be classified as war material. Examples were discovered of the concentration in one locality of the manufacture of some particular and essential appliance; others of the distribution all over the country of plant for the construction of various parts of weapons, war machines, ships or engines before they could be assembled in the usual well known centres. The movement of much material from one place to another was involved, and communications between different localities assumed a dominating importance on account of their value to the fighting forces; in addition to their function of meeting the needs of the population.

It is not possible to generalise about the future of warfare, as affecting the civilian population, because each nation has its own problem, depending upon its geographical situation; **Future menace to civilian populations** upon the distribution of industrial areas and upon their distances from the frontiers of potentially hostile nations, varying widely in different countries. Where these areas, or the capital cities and centres of government, are within reach of intensive air attack or of artillery bombardment, now greatly extended in range, it is clear that, for reasons given, the wars of the future are likely to assume more menacing aspects for the civilian population, be they men, women or children, residing in such areas.

For such nations the days have passed when the bulk of the people could pursue their normal avocations unmolested, while fleets or armies, or both, decided the issues at stake by what may be described as gladiatorial combats on behalf of the nations concerned; though these conditions do not apply to the same extent to countries that are more sparsely populated. Conditions of strategy and of combat between the fighting forces themselves will be strongly affected in future wars by the advance of scientific discovery which has placed at their disposal aircraft, wireless communications, mechanised movement and lethal gases, and other new features and weapons dealt with more fully in the following chapter.

THE NEW ELEMENTS IN WARFARE

Evolution in Tactics Strategy and Weapons
produced by the Experiences of the Great War

By COLONEL J. F. C. FULLER D.S.O.

Author of Tanks in the Great War, etc.

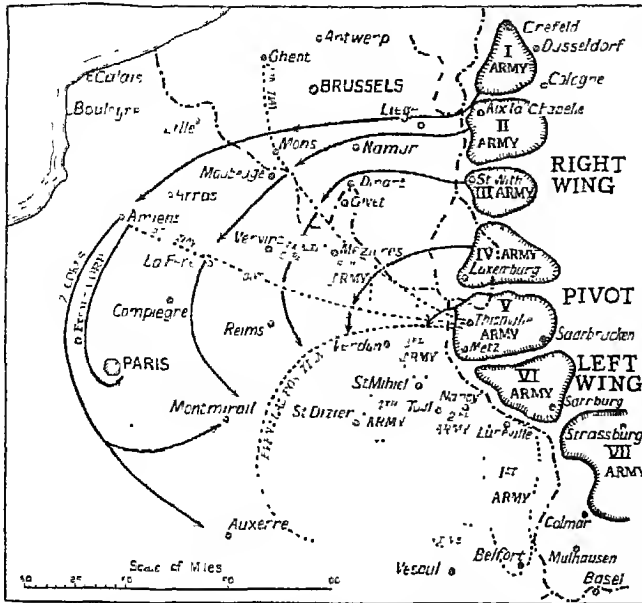
BETWEEN the years 1871 and 1914 warfare was to a great extent looked upon by soldier and politician as a condition separated from the normal activities of peace, as something apart from civil and industrial life, as a necessary evil or as a useful means of enforcing policy. During these forty-three years the weapons and equipment of armies were completely changed. The introduction of smokeless powder, the magazine rifle, the machine gun and quick-firing artillery radically modified tactics. Yet the soldier, in place of examining these modifications, put his trust in numbers. Wars were to be won by hordes of men, hordes which when once set in motion would sweep all before them.

It is realized to-day that this outlook was fallacious, and to it may be traced most of the blunders of the Great War, as well as much of its cost, its destructiveness and the embitterments it engendered. The soldier of 1913 considered that the next war would be mobile and rapid; yet M. Bloch, a Polish banker, had predicted in 1897 that everyone would be entrenched in the next war, and that the spade would be as indispensable as the rifle. The block-house lines of the South African War and the entrenched and wired battle fronts of the war in Manchuria supported M. Bloch's contentions; but soldiers took not the slightest notice of these warnings, and so it happened that they plunged into the Great War mentally blindfolded.

The opening campaigns of the war, notably those of the Marne and of Tannenberg, shattered all faith in the strategical and tactical shibboleths of forty-three years. The Germans, leaving only a small force on the Vistula, assembled an

enormous horde of seven armies along the Rhine. The whole formation may be compared to the phalanx of ancient Greek and Oriental warfare, for there were no reserves behind it; the troops composing it, so it was considered, were sufficiently numerous to make good their own losses. Once this ponderous machine was set in motion, its right wing, working on a scheduled time-table, was to march through Belgium, circle round Paris, attack the French armies in rear and sweep them into the arms of the left wing, which was to advance over the Franco-German frontier. The main French forces were assembled between the Meuse and the Vosges; they also were to advance in mass, all armies, except one in reserve, attacking simultaneously. By this means it was hoped to blast a huge hole in the German fighting front.

Both plans broke down. The French at once discovered that the resistance which could be exerted by modern firearms in defence more than out- Collapse of pre-war Tactics balanced their pressure in attack. They could not advance as they had expected, and, as the Germans were pushing rapidly through Belgium, General Joffre drew in his right wing and assembled a new army north of Paris. If all had been well with the German phalanx, this little army—General Maunoury's—must have been swept up by the encircling right wing like a shrimp in a net, but though outwardly all looked well, inwardly a dry rot had set in. Casualties had forced contraction towards the centre, as they normally do. This contraction pulled the German right wing inwards, and forced it to pass on the east instead of the west of Paris.



GERMAN STRATEGY THAT FAILED

The German campaign plan of 1914 is schematised in this map. Four armies were to wheel through Belgium and Luxemburg, lightly defended because of their guaranteed neutrality, encircle Paris, and drive the French armies (shown in dotted outline), massed on the Mezières-Belfort frontier, on to the front of the remaining three.

Meanwhile, thousands of men were being daily sent by rail to General Maunoury, who, from September 5 to 10, caught the German right in enfilade. To meet this blow required a reserve army, but the Germans possessed no reserves, and to stop the phalanx was most difficult—it was like attempting to stop an avalanche from rushing into the wrong valley. The German higher command now completely broke down; control was lost while the French and British advanced to the attack, and won a decisive strategical victory, but not a tactical one.

Simultaneously in the east another campaign was being fought. Two great hordes of Russians, under Generals Rennenkampf and Samsonov, were advancing in East Prussia, the first from the east and the second from the south-east. Before they could join hands the Germans concentrated their forces against Samsonov's army, and all but annihilated it on the field of Tannenberg. It was a great tactical victory, but not a strategical one, for Rennenkampf, though defeated when the Germans turned on him, slipped

back, and winter and lack of communications stopped a sustained pursuit.

To return to the western front. The battle of the Marne was followed by the battle of the Aisne, in which trenches began freely to appear. Though hastily dug, these trenches generally defeated an attack, and, if they were wired, to carry them by assault demanded not only an enormous sacrifice of life but the strongest possible artillery support. Then what has been called the race for the coast began.

Tactically, it was not so much a race as the desire to seek an unentrenched flank, since to attack a trenched front was an all but impossible operation. Both sides began feeling round each other's exposed wing; directly they came into contact they dug trenches, and, as both advanced at about the same pace, trenches rapidly wriggled forward from the south towards the north until the last spadefuls of earth were cast into the North Sea. Then all movement halted, and the 'rigor mortis' of pre-war tactics set in; it was the death of a military epoch—the modern infantry cycle of war.

During the first four months of the war, the tactical doctrines, largely derived from the Napoleonic wars and the Franco-Prussian War of 1870, were put to the test. They broke down, and with them strategy; hence the long duration of the struggle. The main reasons for this may be traced to two definitely ascertainable sources. The first was the faulty appreciation of the human element in war, and the second the failure to grasp the nature of the changes that during the preceding century had taken place in the tactical elements."

During peace time, the period in which the soldier prepares for war, his one great

and permanent difficulty is the lack of reality that surrounds his work: Danger is absent, and it is almost impossible to realize what fear means. Yet it is fear that controls the battlefields, for whatever be the weapons of war they are, one and all, handled by men; and since on the battlefield, as when off it, men wish to live, their first impulse is self-protection, and the more apparent the danger the stronger does this impulse grow. To prepare him to control this impulse the soldier is disciplined to obey regardless of cost; he is also imbued with what is called 'moral,' that is, endurance to face danger combined with confidence in his skill, in his weapons, in his comrades and in his leaders.

Thus far the problem is comparatively easy, but now comes the main difficulty—the discipline of mind. The private soldier may be a hero, but unless his leaders and commanders are true artists of war, that is, unless they can paint, as it were, a possible picture of the next war,

a picture in which may be seen all that the soldier should and can do when surrounded by an atmosphere of danger, their work of art will lack perspective. This lack of perspective was the one great void that characterised military thought from 1870 onwards. The soldier was trained to become a wonderful fighting machine, but it was forgotten that in spite of this he was still human, and that on the battlefield the most powerful enemy he would meet was not man, but the god of war—fear. This introduces the second point.

For forty years the general staffs had thought offensively. 'To advance is to conquer,' said Frederick the Great; therefore to hit out, and to continue hitting, was the surest means of sustaining forward movement. So far as this goes they were right, for offensive power and movement are two of the three fundamental elements of war: the third is protection, and this one they overlooked. Every new, or improved, weapon was to increase offensive power, but it was forgotten that increase in ability to hit must be shared with a similarly equipped enemy, so that the problem of increasing offensive

power was incomplete unless simultaneously the soldier could be better protected.

The South African War had shown the high defensive power of the magazine rifle, and, though trenches were seldom dug, the war was largely defensive in nature, because in place of earthworks hundreds of miles of block-house lines were built and linked together by wire entanglements. To counterbalance the destructive power of the rifle, infantry extensions were increased, until at times fifty paces could be counted between the men of an infantry firing line. Yet after the war this fact (and many others) was lost sight of, minor tactics throwing back to their 1870 type.

In the Russo-Japanese war fire power became still more destructive; the machine gun could not be attacked

frontally, and the field **Defensive power** gun provided defensive **of modern arms** action with so strong a

backbone that time could be gained wherein to entrench and wire complete battle fronts. At Nanshan the Russian front was completely wired from flank to flank, and the Japanese lost 4,300 men in carrying the position. At Mukden the whole Russian front was entrenched, a continuous trench line of 50 miles being dug, and because of this the Japanese were compelled to outflank their enemy.

Though the Russo-Japanese war was closely studied by the general staffs, it is an astonishing fact, and yet one which cannot now be controverted, that one and all misread, or could not see, the outstanding lesson taught by this war, and, more obscurely, by the South African war: that the offensive power of modern weapons was so great that, if these weapons were used defensively, the offensive power of the frontal attack could rapidly be reduced to zero; that is, it could be definitely halted from four to eight hundred yards in front of the defenders' position. Consequently the main problem was not so much to increase the offensive power of attacking troops as to protect them against the defender's fire.

Between the close of the Russo-Japanese war and the opening of the Great War a revolution took place in field artillery. The quick-firing gun was adopted by all

armies, and indirect laying (ability to deliver aimed fire from behind a rise or hill) took the place of firing over the sights. Though these two tactical changes enormously increased the defenders' power of resistance, so hallucinated were the general staffs that they could see in them only a means of accelerating the attack. According to General Herr (a French artillery expert) this is how France saw the approaching Armageddon:

The war will be short and one of rapid movements, when manoeuvre will play the predominating part; it will be a war of movement. The battle will be primarily a struggle between two infantries, where victory will rest with the large battalions; the army must be an army of personnel and not of material. The artillery will only be an accessory arm, and with only one task—to support the infantry attack. . . . The obstacles which one will meet in the war of movement will be of little importance; field artillery will have sufficient power to attack them. . . . The necessity for heavy artillery will seldom make itself felt.

Such was the outlook when, in August, 1914, the Great War flamed across Europe. It was going to be a stupendous infantry contest in which the side that possessed bulk numbers of 1914 endowed with the highest offensive spirit must win. So misunderstood were the elements of war, and so overlooked was the element of protection, that four months later protection had completely monopolised tactics and all movement ceased. Infantry had ceased to exist as infantry, they had become indifferent field engineers encased in the earthy armour of their trenches; for to attempt to attack above ground was to court immediate destruction. In four months of warfare the tactical theories of forty years were reduced to nothing.

The war problem now became one of mobility, how to re-establish movement; for unless armies could move, the war must end either in stale-mate or through the utter exhaustion of one side or the other. This, in fact, was what M. Bloch had predicted, for in 1897 he said: 'Soldiers may fight as they please; the ultimate decision is in the hands of famine.' This problem was both strategical and

tactical, and as it appeared at the time easier to shift battlefields, even whole theatres of war, than to re-equip armies, both sides began to look for new strategical objectives. For the Germans this was not difficult; if they could not break through the French and British trenches in France, then they could turn on the Russian armies, which had a far wider front to protect, which were badly equipped and most indifferently commanded. This change took place shortly after the battle of Tannenberg, but the lack of communications in Russia, the enormous depth of the empire, the lack of vulnerable points at which to strike and the severity of the Russian winter defeated all endeavours to bring Russia to her knees until internal revolution had stabbed her in the back.

For the Allied powers it was more difficult, and divided opinions resulted in the adoption of half-measures which are always the most dangerous in war. The 'western school' of thought said: 'Remain on the western front; it is only there that the war can be won.' The eastern school replied: 'Why continue to kick against the pricks? Advance through the Balkans and knock Turkey and then Austria on the head.' The former was in favour of attacking strength, the latter of attacking supposed weakness. But the eastern plan could only be carried out by sea, and when good railways exist the locomotive can always beat the ship as a troop carrier, so it was overlooked that an initial success in the East was likely to be followed by colossal failure.

Divided opinion resulted in the Dardanelles campaign, a grotesque failure which in place of demonstrating the folly of dispersion of force led to a still greater dispersion. A third school of thought now arose, the attrition school, which said: 'The Central powers cannot be defeated on any front; they must be encircled by trenches and bayonets and starved into submission.' The circle was to run from the Skagerak through France, Italy, the Balkans, Palestine and Mesopotamia, and then link up with the Russian front. As far as the British Empire was concerned

the result was an extensive naval blockade of the Central powers, and the campaigns in Macedonia, Palestine and Mesopotamia. The answer to this stupendous siege was the blockade of the British Isles by German submarines. Such were the main strategic influences of the tactical breakdown—the strife of armies was to be replaced by the economic blockade of entire nations. The relationship of war to peace, that is, that war is a product of civilization, a part of it and not apart from it, was dimly beginning to be perceived.

Tactically, the influence of the stalemate was as far-reaching. Though infantry had completely failed in offensive action, during the whole of 1915 the railways pumped hundreds of thousands of riflemen on to the battlefields; there to stagnate in human puddles, to evaporate and to be replenished. To move these thousands resulted in enormous demands being made for shells, and then for guns of all calibres. To move these shells from the rail heads forward required thousands of extra lorries,

and hundreds of miles of tramways and small-gauge railways. To 'spot' the fall of the shells when fired resulted in a demand for more and more aeroplanes, which in their turn had to be equipped with photographic appliances and wireless telegraphic apparatus. To supplement the aeroplane, electrical ranging instruments, such as 'flash-spotters' and 'sound-rangers,' were introduced.

One demand followed another in rapid succession; few could be met by the soldier himself or by his permanent arsenals. More and more were the civilian industries, trades, professions and sciences drawn into the war, until the old conception of 'a nation in arms,' which never meant more than conscription, was replaced by that of 'a nation of war workers.' More and more did it become apparent that not only could a nation be attacked economically, but that all the economic factors that in peace time produced its wealth could in war time be utilised to supply, reinforce and maintain



'A NATION OF WAR WORKERS': ACTIVITIES ON THE HOME FRONT

It was not long before the combatants in the Great War came to realize that the old conception of war as being the exclusive business of professional or conscript armies was outworn; and the still older conditions returned in which, as with the Greek city states, war affected every citizen. All civilian activities were viewed in their relation to war needs; this photograph shows girl workers, masked for protection against fumes, filling shells in a British munition factory at Chilwell.

Photo, Imperial War Museum



THE TRENCH SYSTEM IN EMBRYO

The earliest trenches of the war were very different from the elaborate defences of later years; shallow, and hastily dug where sudden need and infantry rather than artillery tactics demanded. The King's Liverpool Regiment is here holding a line of impromptu fire pits in the Ypres sector, 1914.

its war muscles. Thus was it learnt that the difference between war and peace is only one of a change in policy, and not one of a radical difference between working and fighting. Both require expenditure of force, the one to create, the other to destroy, and all this became apparent because an entrenched front could not be broken by an infantry assault. The spade, not the rifle, had become the controlling tactical implement.

There was little essentially new in the type of warfare that now set in. In the days of Caesar an entrenched camp was all but invulnerable to attack. In those of Vauban the increased use of field fortifications introduced the modern military engineer, and tactical engineering evolved into a science. In the Crimean War and the Civil



TRENCH ON A FORWARD SLOPE IN THE DAYS OF THE SINGLE LINE

Where the armies halted at the limit of German advance, or at the limit of German retreat in front of Paris, there stagnation set in and the first trenches appeared—real trenches, as opposed to the shallow burrows seen at the top of the page. They were still designed, however, to afford a field of fire for infantry rather than protection from gunfire and were therefore built on forward slopes, as seen in this example elaborately equipped with fire recesses.

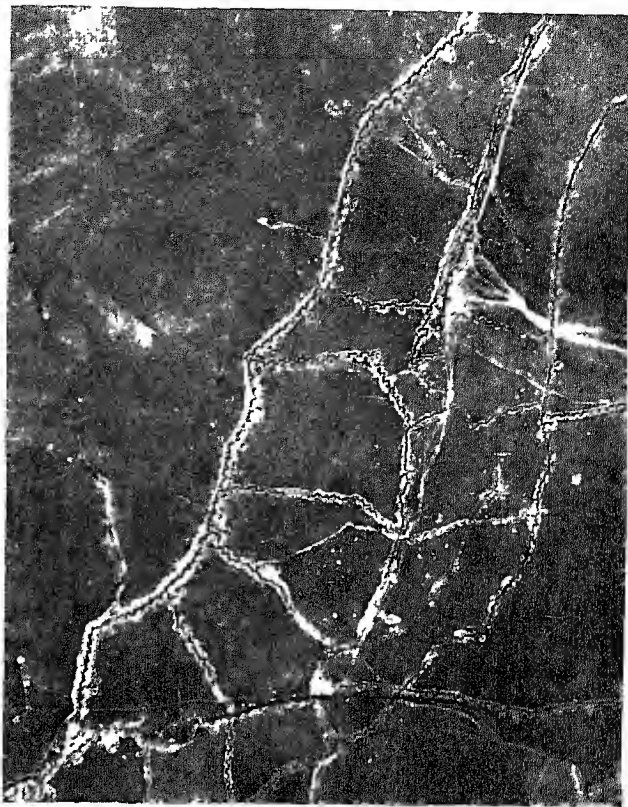
Photo, F. Kelly, Carlisle

War in America the assault of trenches proved most costly operations, as they again did in the Russo-Japanese war; but, because they were not extensively used in the Franco-Prussian War, in 1914 no European army was prepared to deal with entrenchments on the grand scale.

The first trenches that appeared in 1914 marked the high-water line of the attack and the defence; they were badly sited, and were generally developed along forward slopes so as to obtain a field of fire for infantry riflemen. While in 1914 defence consisted in holding a line of little depth, the time wherein to dig, and the continual increase in the range and weight of artillery, compelled each side to double, treble and quadruple its defences, until the line grew into a belt of lines some three to five miles deep. This evolution in trench warfare took place during 1915, a year which showed at the battles

of Neuve Chapelle, the Dunajetz, Loos and Champagne that a single system of trenches afforded, at best, but an uncertain protection against massed artillery fire. The problem was now no longer one of breaking a line but of driving a substantial wedge of men through a broad belt of defences, the front of which could generally be shattered by artillery. Thus the battles of Verdun and the Somme proved in 1916.

In 1916 the majority of the German forces on the western front were placed in the forward defensive zone, and they suffered accordingly. In 1917 they changed their defensive policy; reducing their front line garrisons, they assembled in rear of them large reserves that could counter-attack the enemy when he broke



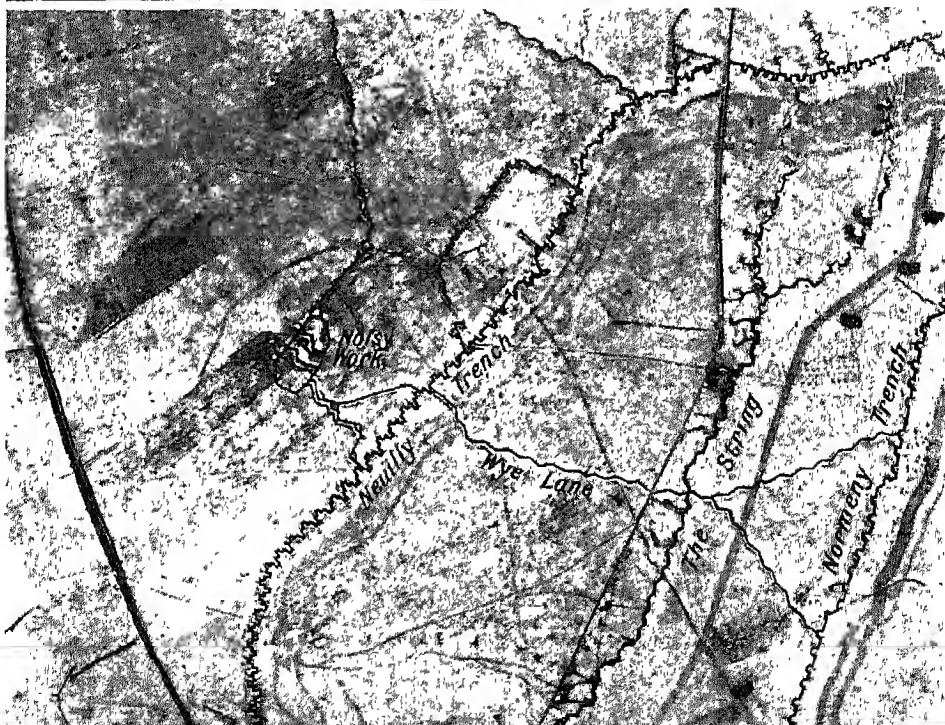
LAY-OUT OF THE MULTIPLE TRENCH SYSTEM

It was found that a single trench system offered very little guarantee against penetration, so in 1915 the multiple system appeared, linked by communication trenches. Note, also, in this air view of a typical section, how the fire recesses have given place to traverses, to restrict the effective range of shell bursts

Photo, Royal Flying Corps

through. They had not, however, grasped that as artillery formed the backbone of the defence it should be placed sufficiently far from the front to secure it from being over-run by the initial assault. This mistake on their part led to the loss of two hundred guns on the first and second days of the battle of Arras in 1917.

Immediately after this battle the Germans once again altered their defensive tactics, and the alterations made can best be shown diagrammatically. In the diagram in page 4805, suppose that AB is the German front line system, while CD, their second line, is so placed that the German guns at E can heavily shell the whole of CD, and yet be out of range of the enemy's guns at F. Suppose also that the area ABDC is strongly wired and well sprinkled



DEFENSIVE TRENCH TACTICS AS FINALLY ELABORATED BY THE GERMANS

By 1917 the Germans had fully developed defensive trench warfare. These air views, oblique and direct, both show the same system east of Arras. It will be seen that the front line, Normeny Trench, is sketchy compared with the reserve line, Neuilly Trench; indeed, though heavily wired, it would be lightly held, while the area between the two is also wired and sprinkled with machine-gun posts (one marked). Thus the attacker, if he penetrates the first line (with little loss to the defender) will be caught by a counter-attack from Neuilly Trench while floundering in this difficult zone.

Photos, Royal Flying Corps

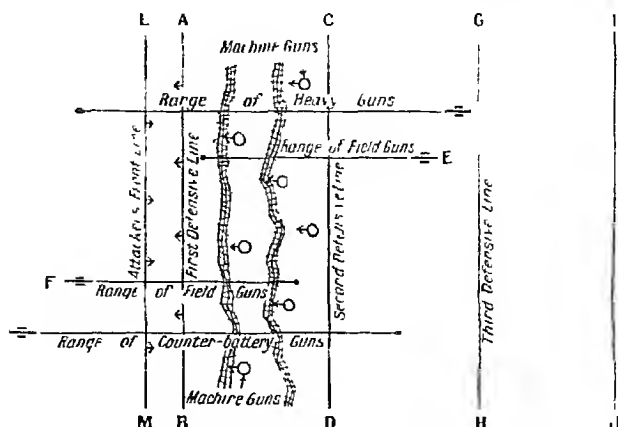
with machine guns, who will suffer most in an attack? There can be no question that it will be the attackers from LM, for they will not only be perpetually worried by machine gun and sharpshooter fire in ABDC, but as they advance towards CD they will come more and more under the enemy's gun fire. Suppose that the attackers capture CD, then at best they will only be able to remain there as impassive spectators of their own destruction, until such time as their guns at F can move forward to support them. To conclude these Fabian tactics, once

the enemy's guns at E come under fire of those at F, they can retire, under cover of a machine-gun barrage, behind the line GH, and later on behind IJ, and by always keeping sufficiently far away from the front can avoid being over-run by the initial assault. Thus they can wear the attacker down until he is so weak that he is at the mercy of a counter-attack.

This system of artillery tactics began to be adopted about the time of the battle of Messines in June, 1917, and on the first day of this battle only fifty German guns were captured. At the third battle of Ypres they were fully developed by the Germans, and only eight guns were lost.

Let us now turn to the problem of the trench attack. The closing operations

of 1914 showed that infantry were incapable of penetrating a trench line defended by wire and machine guns; that the attack must become more methodical; that strong forces must be concentrated at one point, not many; and that the infantry assault should be prepared by a heavy surprise bombardment carried out by as large a force of artillery as it was possible to assemble. These lessons were put into practice at the battle of Neuve Chapelle (March 10-12, 1915). Only two British divisions attacked on the first day, and the frontage of attack was about



IMPROVED ARTILLERY TACTICS FOR DEFENCE

The only later modification of the German defensive methods illustrated opposite affected the disposition of artillery. Originally the guns were so far forward that an attack might overrun them, after the battle of Arras (1917) they were moved back, with the effect shown in diagram above, and explained in the text.

3,500 yards; yet thanks to an intense and rapid bombardment which lasted only thirty-five minutes a definite penetration was effected. In spite of this valuable lesson in the power of surprise, method rather than originality of attack was rapidly gaining control over the mind of the higher commands, for in the conjoint Franco-British attack on May 9 we find the French replacing surprise by a preliminary bombardment lasting six days.

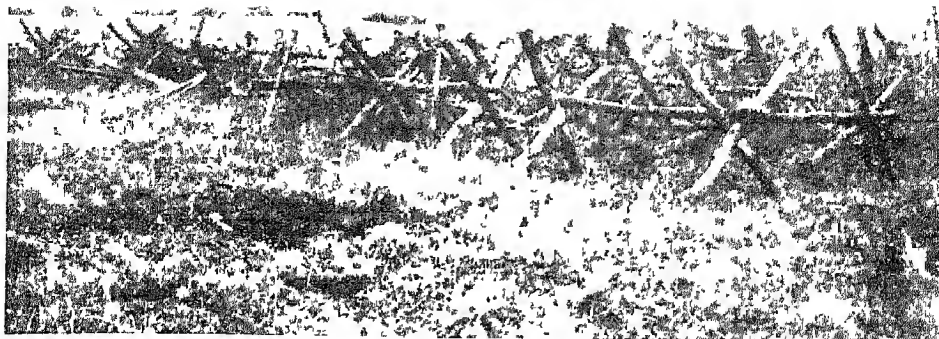
All these assaults against one point ended in failure, so in the autumn a dual Franco-British attack was mounted and took place on September 25. The attack was launched against the Arras-Noyon-Reims salient, British and French forces attacking eastward from Loos and in Artois, and the main French force, under General Pétain, from Champagne northwards. The French objectives were unlimited; that is to say, the infantry attack was to push on until it had penetrated the entire German defensive system. This accomplished, seven French cavalry divisions were to carry out the pursuit. The result was a complete failure; first, because the two battlefields were too far apart to influence each other strategically; secondly, because infantry did not possess the tactical power to carry out an unlimited attack.

The increasing power of the defence induced increasing caution in the attack.



PROBLEM OF THE TRENCH ATTACK IN A CAPTURED MINE CRATER AT LOOS

By 1915 it was realized that infantry alone was powerless against a properly defended trench line and the great artillery phase of the war began. Neuve Chapelle in March and Loos in September (unexpectedly complete Allied successes that were not followed up) then demonstrated that with artillery preparation a single line could be pierced and the multiple system as we have seen came into force. North of Loos on September 25 the attack was preceded by the explosion of a mine; this photograph shows the crater after its capture but before the dead and wounded were removed.



LOOS : EFFECT OF BOMBARDMENT ON BARBED WIRE, TRENCH AND VILLAGE

At the top is an example of what makes a trench impregnable unless it be first blasted to pieces by gunfire. wire, with machine guns behind it. Nor is it very vulnerable to any but the fiercest gunfire, for the section illustrated, in front of a German trench at Loos, is still uncut after a bombardment whose intensity can be measured from its effect on a captured trench (centre) and on the village of Loos (note the famous 'Tower Bridge,' a pit-head structure, in the background)

Photos, Imperial War Museum



DESOLATION OF WAR AFTER TWO MONTHS OF FIGHTING ON THE SOMME

Neuve Chapelle had been preceded by a surprise bombardment, Loos by a methodical one. Similarly the tactical element, discernible in the dual attack with unlimited objectives of Loos-Champagne, vanished and was followed in 1916 by vast single battles of attrition. The Somme offensive is the classical example, and the desolation caused by such artillery battles is seen in this view of the 5th Seaforth Highlanders holding a front-line trench in front of Martinpuich on August 25.

Photo, Imperial War Museum

The French now began to realize that 'artillery conquers and infantry occupies.' Tactics were thus reduced to a matter of push of pikes, or rather push of shells. Drill took the place of manoeuvre, method of surprise, and shell fire replaced leadership. Tactics were, in fact, reduced to the level they occupied under the Spartans in the fifth century B.C.

The failure of the unlimited infantry attack, and the preponderating influence of artillery on tactics, introduced the period of the great artillery battles in which infantry moved at a slow pace behind hurricanes of shells, and merely collected prisoners, or occupied positions without fighting. Since 1914 the whole aspect of tactics had changed, and these changes reached their culminating point in 1916. During this year two stupendous battles of attrition were fought on the western front, namely the battles of Verdun (see pages 4762-3) and the Somme.

The first opened on February 21 with a surprise attack on the part of the Germans. The prolonged artillery bombardment was replaced by a violent cannonade lasting only a few hours. The infantry attack was then launched and succeeded in making considerable head-

way, not so much because the German guns had destroyed the French wire and trenches, as because the garrisons of these trenches had been demoralised by the intensity of the bombardment.

At the battle of the Somme, which opened on July 1, preparations were methodical in the extreme, the preliminary bombardment lasting eight days, during which 2,000,000 shells were fired. The surprise of this battle was again provided by the artillery, and was not a bombardment of a new type but a rolling barrage under the cover of which it was hoped that the infantry would be able to move forward from objective to objective. Though this form of artillery support proved of the greatest assistance, the attack failed, the British losses on the first day totalling no fewer than 60,000.

The lessons learnt from these two great battles were that the frontage of attack must be as wide as possible; that the object of the attack was the zone of the enemy's guns; and that it was hopeless to expect success unless each wave of attack could pass through the one in front of it without delay.

The great single battles of penetration having failed, in 1917 a return was made to

the grand tactics of 1915, it being decided by the Allies to deliver a dual attack against the Arras-Noyon-Reims salient. The British were to attack from Arras towards Valenciennes, and the French from Soissons-Reims northwards. Most elaborate preparations were made for these battles. On the British front the chalk quarries under the city of Arras were prepared to accommodate two infantry divisions which were to cross no-man's-land by passing underground.

Then, in February, 1917, the whole of these arrangements were upset by the Germans retiring to a new line of entrenchments, popularly known as the Hindenburg line, which had been dug from south-east of Arras to Craonne. In spite of this withdrawal the attack was launched on April 9, after a fifteen days' preliminary bombardment in which 2,700,000 shells were fired. A penetration of some 7,000 yards was effected, after which the advance

slowed down, and definitely halted on May 4. The French attack, however, which was launched on April 16, proved a complete fiasco.

The battle of Arras was followed on June 7 by the battle of Messines, which was opened by exploding no fewer than nineteen mines under the German front. The object of this attack was to capture the Messines ridge preparatory to delivering a more formidable blow east of Ypres. Round Ypres was assembled the largest force of artillery ever seen in British history, the gunner personnel numbering 120,000. Three hundred and twenty-one 400-ton train loads of ammunition were 'dumped' to supply a preliminary bombardment of nineteen days in which 4,283,000 shells, weighing 128,000 tons, were fired. The whole surface of the battlefield was torn up, all drains as well as roads were destroyed, and an all but uncrossable swamp was created, in which



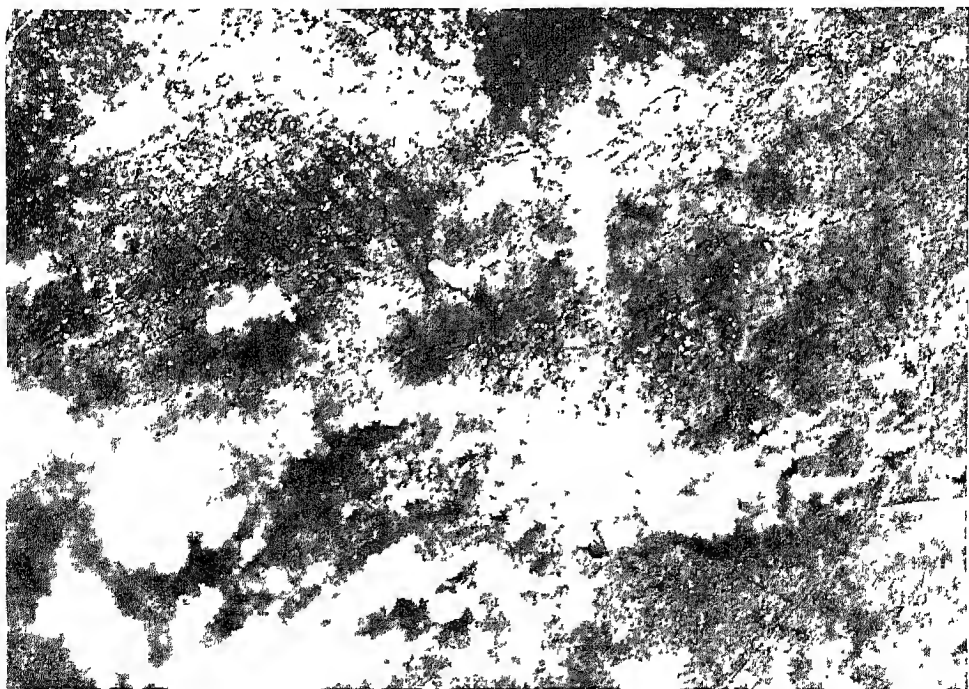
A GERMAN ASSAULT IN THE DAYS OF THE ARTILLERY BATTLES

How artillery by 1916 dominated tactics was shown by the one great innovation on the Somme—the 'rolling' barrage (see page 4768). This German photograph is of unknown date and provenance, but it well epitomises the aspect now assumed by warfare. Leadership, tactics, manoeuvre are at their lowest ebb; men trudge through tangled wire behind a rain of shells to occupy positions that the artillery has or is supposed to have conquered; and a battle is 'won' if a few yards are gained.

Photo, Imperial War Museum



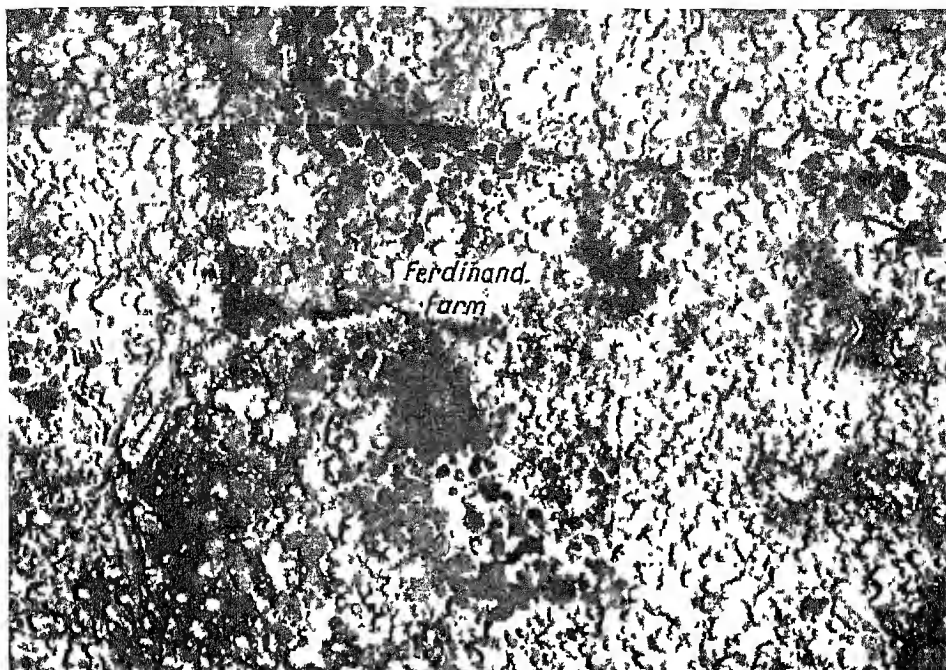
One variation from the normal artillery battle was provided at Messines by the explosion of nineteen huge mines beneath the German defences on the ridge immediately before the attack. Twenty had been dug but one was discovered and destroyed. Their moral effect was shattering, but the craters which soon became tarns did not add to the ease of advanced communications.



THE BATTLE OF MESSINES : PRELIMINARY BOMBARDMENT AND MINE CRATER

The last of the great Allied artillery offensives on the western front was the third battle of Ypres (July 31 1917) but the Messines ridge had to be captured first since it dominated Ypres salient on the south. Accordingly the battle of Messines was staged on June 7, and as usual the attack was preceded by an artillery bombardment whose effect can be judged from this air view of part of the ridge on June 5. Count the visible shell bursts remembering that the exposure is instantaneous.

Photos Royal Flying Corps



WHAT GUNFIRE DOES TO THE GROUND IN WHICH INFANTRY MUST ADVANCE

After Messines ridge had been captured the British attacked east of Ypres, with a nineteen days' preliminary bombardment of unprecedented fury. The weather finally broke, and the total effect on the Flanders plain, low-lying and in normal times elaborately drained, is vividly brought home by these two photographs, from the ground and from the air. Tanks were almost useless in the morass. The ground photograph shows Clapham Junction with Sanctuary Wood in the background.

Photos, Royal Flying Corps and Imperial War Museum

the infantry wallowed for nearly four months. The ground gained was approximately forty-five square miles, and each square mile cost 8,222 casualties.

This third battle of Ypres was the last of the great artillery engagements. The spade had now definitely defeated the gun, and the defence the attack. The special reasons for this are worth inquiring into as they demonstrate clearly the influences of spade, wire and gun on the tactics of trench warfare.

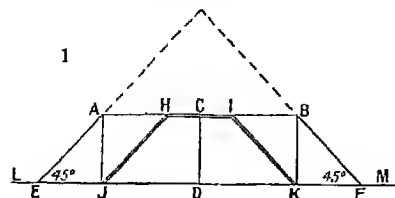
In slow, methodical attacks of penetration a battle salient, or pocket, is formed, and if the battle salients of the war are examined it will be found that their sides slope inwards at angles of about forty-five degrees. The reasons for this are: that artillery protection on the flanks is limited by the arc of fire of the guns; that hostile pressure on the flanks tends, as the attacker advances, to round off the flanks of the attack; that losses invariably tend to contraction towards the axis of the attack; and that, as the centre of the pocket is freer from the enemy's fire than the flanks, its supply is safer, and consequently more rapid.

Granted that the flanks of an attack will slope inwards at approximately forty-five degrees, then, if a penetration is to be effected, the width of the original frontage to be attacked will bear a close relationship to the depth of attack required. The controlling factor in this calculation is the final frontage after penetration, which must be sufficiently wide to permit of a

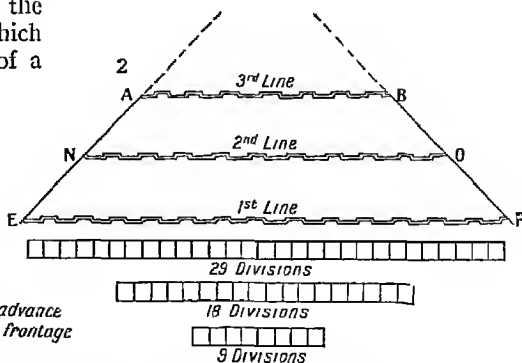
large force passing through the centre of the gap unaffected by hostile fire on the flanks. In practice its width must be about fifteen miles, and the width of the initial frontage necessary to achieve it may be arrived at by measuring the distance between these two frontages, multiplying it by two, and adding this distance to the fifteen miles in question. Thus in diagram 1 below: If the width of the desired gap is AB, and the distance between it and the original base LM is CD, then EF (the initial frontage) will equal $AB + 2CD$. In this case it equals 15 miles $+ 2 \times 5$ miles, that is 25 miles, and the 'defiladed' cone JHCIK will have a base of 15 miles and a truncated apex of 5 miles free from most projectiles.

The number of infantry divisions required to effect a penetration against a strongly entrenched enemy, holding three defensive lines of a depth of five miles, may theoretically be worked out in the following manner.

There are three lines of trenches to be penetrated, each of which will require a separate line of divisions. The distance separating these lines in each case, we will suppose, is two and a half miles. An infantry division had at this date (1916-1917) a battle front of about 1,500 yards in the initial attack, 2,000 in the secondary attack, and 3,000 in the tertiary. Consequently (see diagram 2) twenty-nine divisions will be required to penetrate the line EF, and eighteen and nine divisions to penetrate the lines NO and AB

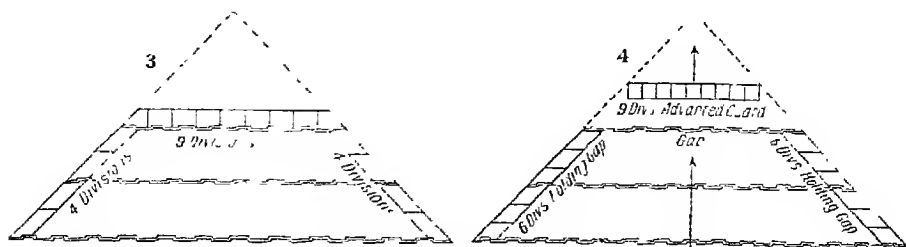


A-B Width of gap desired L-M Original base of advance
D-C Distance to be covered by attack E-F Initial frontage
JHCIK Defiladed cone of advance



WHY SINGLE ATTACKS OF PENETRATION FAILED: DIAGRAMS 1 AND 2

For tactical reasons the flanks of a penetrating attack slope inwards at about 45° (diagram 1). For the tip of the potential cone to reach the last defensive line is useless, since there must be a gap broad enough to permit the attackers to pass through unshelled from the flanks: in practice, 15 miles. The breadth of initial attack necessary to secure this is twice the depth of the defensive system $+ 15$, for $EF = 2CD + AB$. Now if $EF = 25$ miles and the defence consists of three lines (diagram 2), fifty-six divisions will be necessary to carry them (see text).



ATTACKS OF PENETRATION : DIAGRAMS 3 AND 4

Though nine of the 56 divisions may hold the gap and eight the two sides after the attack (Diagram 3), the remaining 39 will have to refit, and an additional field army of about 21 divisions, nine of them in advance, will be required for pursuit; further divisions being meanwhile withdrawn for refitting (Diagram 4). This means 77 divisions or over a million men.

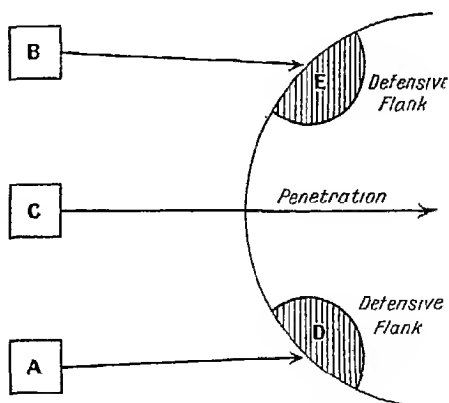
respectively. This amounts to a total of fifty-six divisions. After the initial attack twenty-five divisions can be withdrawn to refit, and after the secondary fourteen. This means that, once the penetration has been effected, thirty-nine divisions will be in potential reserve, and the remaining seventeen will be holding the sides and apex of the hollow truncated cone (see diagram 3 above). The area JHCK (diagram 1), with a base of fifteen miles, is almost shell-free, and forms the manoeuvre ground for the forces which are to pass through the gap. As the thirty-nine divisions will take at least seven days to refit, they cannot be employed to pursue, therefore besides these divisions a field army of at least twenty-one divisions will be required, nine of these to act as a general advanced guard to cover the approach of the remaining twelve, which will act as a manoeuvre mass (see diagram 4), supported by the withdrawn divisions once these have refitted.

The total number of divisions required is, therefore, seventy-seven, or 1,200,000 men. The supply of this prodigious force in the restricted area is manifestly most difficult, if not impossible; consequently, the result was that an attack of penetration against a determined and well entrenched enemy was normally a failure.

We have here entered into considerable detail to show the immense difficulties of attacks of penetration. The depth to be penetrated has been taken as being five miles, but already in 1916 many trench systems were deeper than this, and every hundred yards added to their depth meant

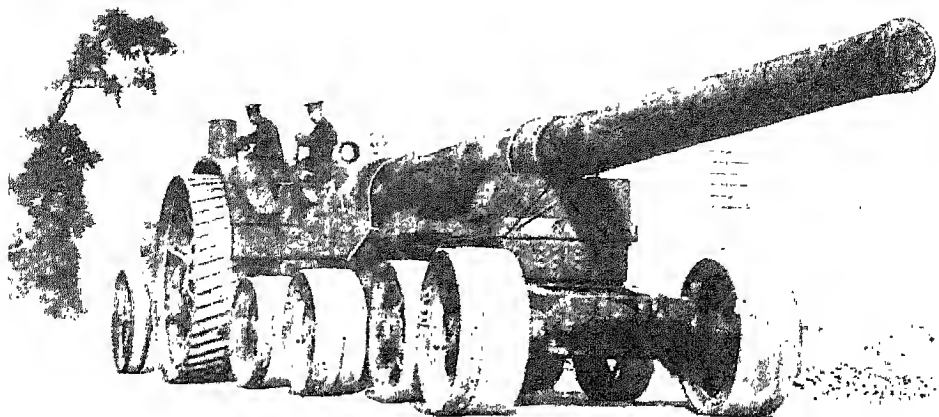
thousands of men added to the penetrating forces. Operations of single penetration with artillery and infantry were not practicable against deep and well held entrenched zones, so tactics of the dual penetration, such as were attempted in 1915 and 1917 against the Arras-Noyon-Reims salient, were employed.

A dual attack is one delivered against two closely related sectors of the enemy's front, made with a view to break the section of trenches which connects them. In such an attack, as shown in the diagram below, it is advantageous if a salient be chosen. For an operation of this nature three separate forces are required. A attacks at D, not with a view to penetrate but to form a battle salient



SCHEME OF THE DUAL ATTACK

More promising than the single attack of penetration was the dual attack against two related sectors of an enemy salient; the intention being to force evacuation of the sector between, followed by an unresisted penetration protected on the flanks by the two original attacks.



PONDEROUS INSTRUMENT OF THE TACTICS THAT RELIED ON ARTILLERY

This is an epitome of the tactics that reigned supreme up to the very end of 1917: a Royal Marine Artillery tractor hauling the 15-ton barrel of a 7.5-in. long-range gun from H.M.S. Swiftsure up to the forward area in July, in preparation for the third battle of Ypres, which proved the last big battle of the old tactical era. Even great pieces of this calibre, and millions upon millions of shells, had been insufficient to force a decision in the wasteful artillery duels of the previous two years.

Photo, Imperial War Museum

which will draw in the enemy's reserves. B attacks at E, to do likewise. Meanwhile a tactical penetration is being automatically effected in the area between the salients D and E, not only by the exhaustion of the enemy's reserves which can reinforce this intermediary sector should it be attacked, but by a squeezing of the sector into so pronounced a salient that concentric fire will render it untenable. The enemy holding it will normally be forced to evacuate it, thereupon C, following up his withdrawal, will effect a penetration under the protection of the two tactical bastions formed by A and B at D and E, which prevent concentric fire being delivered against C's flanks.

This system of penetration, which in the conditions prevailing in 1916 and 1917 was in all probability the only practical one, was not properly understood. Dual attacks were attempted, but they were too far apart to influence the sector that connected them; they consequently became two separated attacks and not one co-operative engagement, and as such they were doomed to fail. The next great phase of the war opened a phase which was to disclose new tactics.

During 1917 not only had the entrenched zone grown deeper and the wire fields which covered them grown wider, but the

fact that these trenches and wire fields were being dug and constructed more and more on the reverse slopes of positions made the task of their bombardment increasingly difficult. Further, the newly dug Hindenburg system of trenches, which ran across the most suitable sector for offensive action on the Allied front, was not a hastily sited battle line, but an extremely well chosen defensive belt, so much so that coupled with the new defensive artillery tactics it would have been exceedingly difficult to penetrate it by artillery fire. Outwardly the stale-mate was absolute, the spade had defeated the gun; but inwardly, and to a great extent unappreciated, subtler means of attack were being evolved.

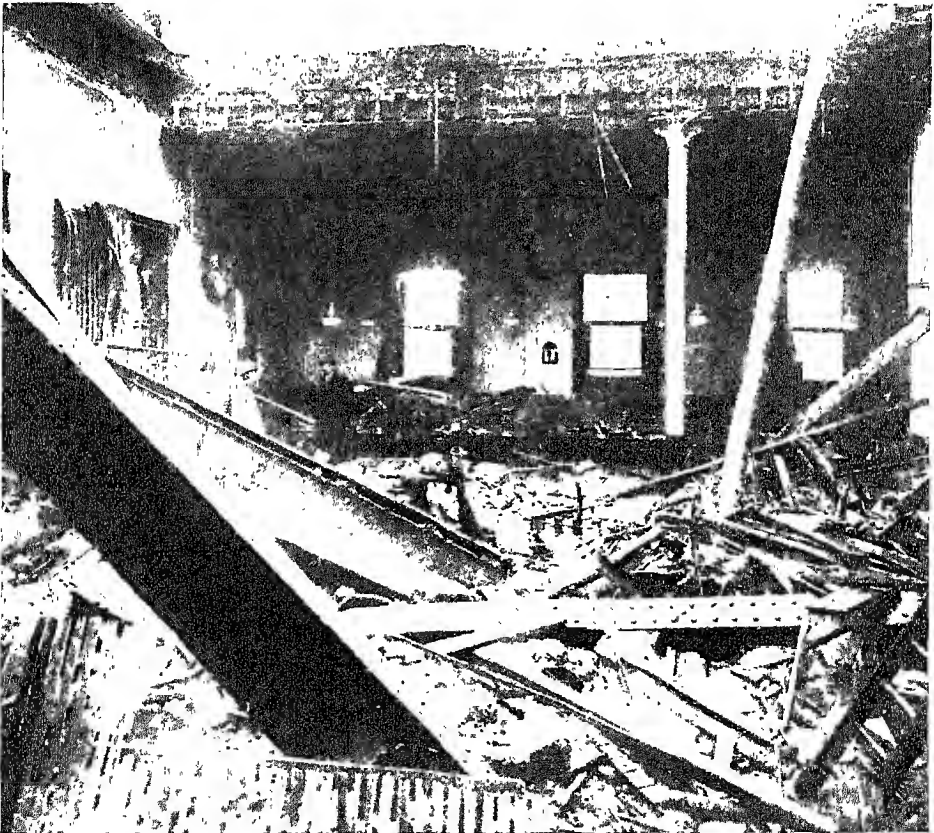
Aeroplanes had now to a large extent ceased to occupy the purely auxiliary position they held during the earlier period. Their production was sufficiently great to permit of independent as well as co-operative action. Bombing raids on far distant points were daily and nightly, being carried out, and the civilian population two hundred miles in rear of the fighting front was beginning to taste the horrors of war, and on its will to endure aerial bombardment depended the 'moral' of the soldiers and sailors who were protecting it against land and sea attack.

As at sea the submarine was showing that it was possible to starve a nation into surrender, so in the air was the aeroplane making it clear to all that it was equally possible to frighten a nation into capitulation.

There was nothing new in either starvation or terror as weapons of war, but the methods of attaining these ends were novel and most difficult to meet. Before the outbreak of the war civilized nations had looked upon war almost entirely as a physical attack in which only soldiers and sailors were directly involved, because public opinion divorced war from the civil activities of every-day life. Now they were beginning to realize the all-embracing nature and influences of war, and to appre-

ciate that besides the physical attack there were the moral and economic attacks, and that these forms of fighting could be employed not only against fleets and armies, but against entire nations.

Meanwhile another agent of destruction was being evolved, namely gas (see pages 4793-5). In this, also, there was nothing new, for in classical and medieval times sulphur, pitch and other asphyxiating and smoke-producing substances had been used to overcome an enemy. In 1812 gas had been suggested as a weapon, and again in 1854 by Lord Dundonald; but in war it was not used as such until April 22, 1915, when the Germans launched their first gas attack east of Ypres. Its object was to suffocate the garrison of an entire area, and



THE HOME FRONT FEELS THE TOUCH OF WAR: NEW METHODS OF ATTACK

While the artillery battles of the western front were achieving nothing beyond the proof of their own grim futility, war methods were insensibly becoming more subtle, involving the civilian populations. There were the Allied blockade and the German submarine war, designed to starve them; and the air raids, designed to break their nerve. Here is seen the damage done to the top floor of the G.P.O. by a 15-kilo bomb dropped in the aeroplane raid on London of July 7, 1917.

Photo. Imperial War Museum



A CASUALTY AMONG THE GREAT ENGINES DESIGNED TO DESTROY 'MORAL'

It is extremely hard to make accurate observations of bombing effects from a Zeppelin, but in spite of the German official announcements of mythical destruction achieved it is impossible not to believe that the real object of the air raids over England was to intimidate the civil population rather than to do military damage. This Zeppelin, the L33, is one that was forced down intact in a lonely part of Essex, through engine trouble and loss of gas, on the night of September 23 1916

Photo Air Ministry, Crown copyright

so permit of an unopposed advance. While gun fire mainly destroyed trenches, gas only destroyed their occupants, who were bombarded not by particles of steel but by chemical molecules. Gas, in fact, is but an extension of the shell, and its nature is such that it is not necessary to see a target or even know where it is, for as long as it is somewhere in the area inundated, the wind being favourable, it must be hit. As the aeroplane was nothing more than an extension of the howitzer, gas was nothing more than an extension of the shell, the 'fragmentation' of which is so minute that everything within its range can be hit.

Shortly before gas made its appearance as a weapon, yet another means of destruction was being considered, and this time in England. The heavy casualties, especially among the infantry, at once suggested the reintroduction of armour. Helmets and movable shields on wheels were first suggested. Helmets were rapidly adopted, but to move a bullet-proof

steel shield by man power over trenches and through wire was impossible, consequently inventive minds turned to mechanical power in the form of the petrol engine. As early as September, 1914, Colonel (later Major-General Sir Ernest) Swinton put forward this idea, and as wheels would be useless for trench and parapet crossing he advised that they should be replaced by caterpillar tracks. The outcome was the tank, a self-propelled armoured machine which could move through wire entanglements and cross trenches up to ten feet wide. Again the idea was not a new one, in fact it was a very old one dating back to the knight in armour and beyond. Its novelty in construction lay in its means of propulsion, for it replaced human and animal muscle power by mechanical energy.

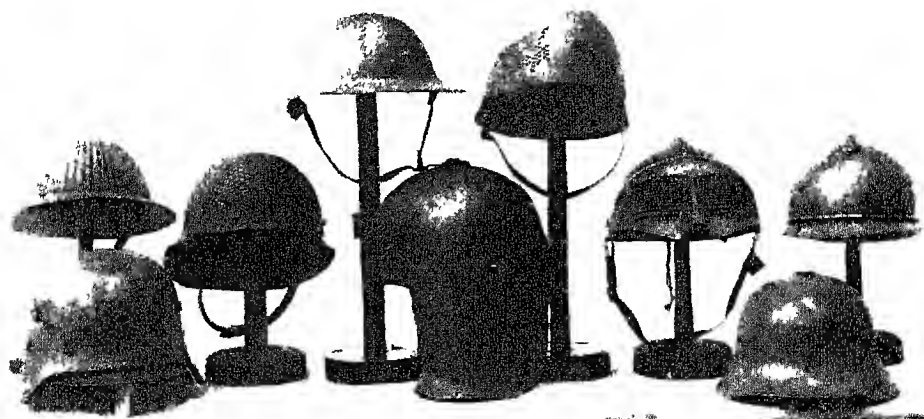
To understand the astonishing influence of the tank on the tactics of this period, it must not be forgotten that the predominant problem since the autumn of 1914 was how to move.

Shell warfare and gas warfare had both failed the first because though wire and trenches could be destroyed by shell fire, their destruction carried with it the destruction of all forward communications. In fact the shelled areas were so blasted by fire that in many cases it was extremely difficult for a man on foot to cross them let alone a wheeled vehicle. If vehicles could not follow up the attackers the infantry and gunners could not be supplied, so it happened that the utmost mobility which could be gained in a great artillery battle was but a few miles at most, sometimes only a few hundred yards. Gas warfare had also failed for lethal gases, such as chlorine and phosgene, were easily countered by the respirator, and vesicant gases could not be produced in sufficient quantities for decisive results, further, these chemicals could not be used where an advance was contemplated.

The tank did not, however, destroy the ground, it could cross wire and trenches, and it was little affected by small-arm fire, its only enemy was the gun. Its armour protected its mobility, and simultaneously from this mobility was developed its high offensive power. Here we are confronted by a startling and radical change in tactics. Hitherto infantry, under cover of artillery, had used

fire power in order to stimulate movement. The rifleman tried to move and made use of the ground as a shield. Metaphorically the tank hit the shield in the form of bullet proof armour on the ground. The trench and its garrison now began to walk or crawl forward and thus enabled the tank to move in order to fire, and not merely to fire in order to move. The change was radical, never before in the history of war had it been possible so closely to combine the three fundamental tactical elements of protection, movement and offensive power.

An equally startling change was that the tank did not supersede the growing influence of artillery but extended it. Even as early as the days of Napoleon artillery was becoming a rival to infantry as the superior arm. Between 1815 and 1870 this fact was lost sight of, then it once again appeared out of the mist of military history. In 1870 the German held gun more than outbalanced the inequality between the indifferent German rifle, the needle gun, and the superior French rifle, the chasseur. In 1904 Major S. M. Home, a British officer attached to the Japanese army in Manchuria, wrote 'The greatest possible advantage should be taken of the tremendous fire action of artillery bearing



THE RETURN TO ARMOUR NATIONAL VARIATIONS OF THE 'TIN HAT'

Armour had long been obsolete in European warfare attention being concentrated on attack rather than defence. The appalling casualties of the Great War however caused the reintroduction of helmets of which nine types are here shown. On stands from left to right: Portuguese (1917 pattern), American, British, Belgian (1917), French ('Adrian' pattern with visor, 1916), French (without visor). In front: German with reinforcing piece, German sniper's helmet, Austrian.

Photo, Imperial War Museum



MACHINES THAT RESTORED MOBILITY TO MODERN WARFARE: A COMPANY OF 'TANKS'

It was armour that finally ended the stalemate of the western front and revolutionised modern infantry tactics - not just armour of the helmet type but mobile armour propelled by its own power: the land battleship, the 'tank'. This is a train of tanks, each with its bundle of machine guns for crossing deep trenches, on the rail in readiness for the Cambrai offensive on November 20, 1917.

Photo, Imperial War Museum

in mind that artillery is nowadays the decisive arm.' The years 1914-17 proved that he was right; but the gun could only defend; it could not attack, because it must fire from a stationary position.

The tank provided the gun with a mobile platform, or mounting, and during the war the only true adversary the tank had to encounter was the stationary field gun; when the tank attacked it the resulting combat may be compared to one between a battleship and a coastal fortress. Mount the field gun in a tank, then mobile gun will meet mobile gun, and landship will meet landship. In place of land warfare we have naval warfare on land; so completely does the tank influence tactics. However, all this was but dimly seen at the time, and by very few. Tank tactics had to struggle on through trial and error, opposition and prejudice.

On September 15, 1916, tanks were first used in battle. It was a remarkable event, and this September 15 will one day be looked upon as one of those great turning points that once every five or six hundred years occur in the history of war and change its course. On this day forty-nine tanks were assembled, of which only thirty-two reached their starting points, and of these thirty-two only nine were able to push ahead of the infantry, and only one event of interest took place. Near the village of Flers the attacking infantry were held up by wire and machine-gun fire, when a tank, coming to their assistance, crossed wire and trench, and travelling along in rear of the defenders forced three hundred Germans to surrender. It was an amazing feat, not because it was so difficult, but because it was so easy; one officer and seven men succeeded in paralysing nearly forty times their numerical strength—and why? Because these eight men were armoured. The lesson was not seen at the time, but it was this: that the static trench could be conquered by mobile iron. On September 25 a somewhat similar operation took place near the village of Gueudecourt, one tank followed by two companies of infantry killing a large number of Germans and capturing three hundred and seventy, at the cost of five casualties.

Tanks first used in battle

These two operations, small though they were, were sufficient to establish entirely new tactics. Infantry could not face the tank, since their weapons could do it no harm. Infantry could not cross uncut wire or face machine-gun fire, except at great cost. The tank could face infantry, it could cross wire, and it had little to fear from the machine gun. At this period its speed was low, and it offered a good target to the gunner; further, the number of tanks was small, consequently they could not be spared to hold a captured position. They required artillery to protect them, and infantry to hold the positions they overran. The first lesson was that the tank could replace the rolling barrage, and consequently should precede the infantry attackers, and that the artillery should cover the tanks. The next lesson was still more startling.

Hitherto, as has been explained, the depth of an attack of penetration depended upon the establishment of secure defensive flanks. These

Offensive instead of defensive flanks normally sloped inwards at an angle of forty-five degrees; and, if the initial base of attack was not sufficiently wide, they met within the enemy's defensive zone and formed a battle salient or pocket. With tanks two offensive flanks could be established; consequently from a comparatively narrow base two forces of these machines, one on each flank of the attackers, could work outwards, and so enlarge the base as the centre of the attack advanced, and consequently protect this centre. This was a revolution in tactics, but unfortunately it was not appreciated, and the result was that at the next great battle, the battle of Arras, in the spring of 1917, the few tanks used, sixty in all, were scattered along a wide front, were drawn up behind the infantry, and were not used for offensive work on the flanks.

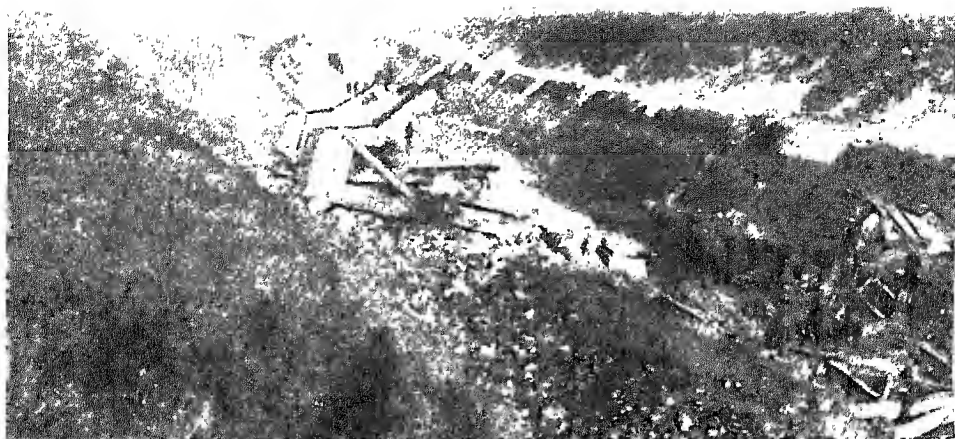
Nevertheless, during this battle an interesting operation was carried out near the village of Bullecourt. Eleven tanks were used to replace the now normal rolling barrage, and to lead the attacking infantry through the enemy's wire and across his trenches. Though

this operation proved a failure, two tanks accomplished their task, and showed that wire need no longer be cut by shell fire; it could be so completely crushed down by the tank tracks as to permit of infantry rapidly passing through the entanglements.

This lesson was a priceless one, for wire now lost much of its terror and power; yet in the next two great battles, the battle of Messines in June and that of Ypres in July, Tanks in the 3rd the tanks again advanced Battle of Ypres to the attack behind the infantry. In the second of these two battles the condition of the ground can only be described as appalling; shell fire had reduced it to a porridge of mud, and deep mud is to the tank what uncut wire is to the infantryman. Yet out of this battle one interesting tactical change developed.

Before the war the infantry attack was based, in theory, on a firing line, the men of which were extended at from three to ten paces interval; this line was followed by supports in close or open order. When the artillery barrage was introduced the firing line followed, in the same extended order, the wall of bursting shells, but as the ground was covered with shell craters men were apt to bunch together to avoid them, or to occupy them in groups for the sake of the cover they afforded. As early as the autumn of 1916 an experimental system of platoon and section groups was tried. Later on, when tanks co-operated with infantry, again men would bunch behind the tanks for sake of cover, and when tanks crushed lanes through entanglements it was imperative that infantry should follow in single file. Though the whole development was slow it tended more and more to replace long extended lines by a series of small sections which could advance in file, and deploy in line to fire, and then play back into single file to advance again.

The third battle of Ypres brings us to the point at which the great artillery period of the war came to an end. From September 1916 to September 1917 tanks had not been given the opportunity of replacing the barrage, because they had been used on shelled ground, and, except for



WHAT TANKS COULD NOT CROSS : THE FLAW IN THE BATTLE OF CAMBRAI

Armoured machines moving on caterpillar tracks instead of wheels, first suggested in 1914, were not used before the Somme battles in September, 1916 ; and only at the battle of Cambrai was the Tank Corps allowed to show that tanks could replace bombardment and moving barrage with the added element of surprise. The attack, a wonderful success, was rendered local by the impassable barriers of the Canal du Nord and St. Quentin Canal, of which the former is here seen a week afterwards.

Photo, Imperial War Museum

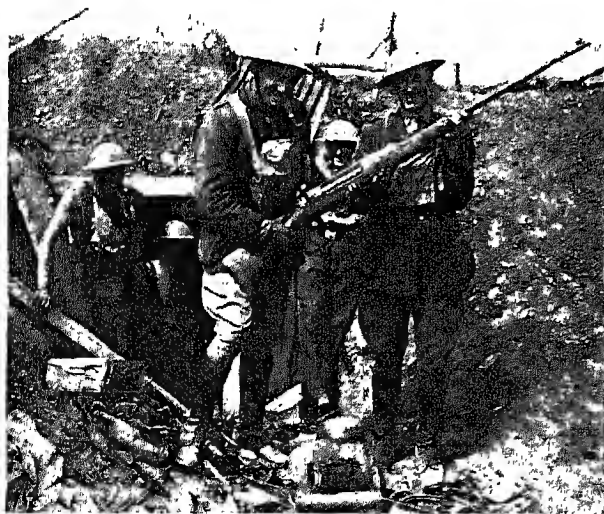
the Bullecourt operation, in rear of the attacking infantry. The British Tank Corps firmly believed that on suitable ground tanks were capable of carrying out a surprise assault against the most for-

midable of entrenched systems, and early in August, 1917, a suggestion was made to deliver an attack south of Cambrai.

The area selected was between the Canal du Nord and the St. Quentin Canal,

because the operation visualised was of a limited nature, and these two canals would automatically confine its margins. On October 20 it was decided, however, to carry out a decisive operation in this area, in spite of the fact that the area itself rendered such an action most difficult, for the two canals precluded the creation of offensive flanks. Not only did the flanking canals prohibit an extension outwards, but, as the St. Quentin Canal took a sharp bend westwards at the village of Crêvecoeur, unless tanks could cross the canal at Masnières the battle front would be narrowed down to 8,000 yards, that is from Marcoing to the Canal du Nord. This actually happened.

The attack took place on November 20. It was a re-



HOW THE GERMANS OPPOSED THE TANK

Tanks gave protection against all but gun fire, and, becoming faster, were poor targets for guns. But so great was the alarm of the German command that they issued a special armour-piercing rifle, of which a captured specimen is here seen in the hands of two gunner officers (Bapaume, August, 1918).

Photo, Col. Fuller

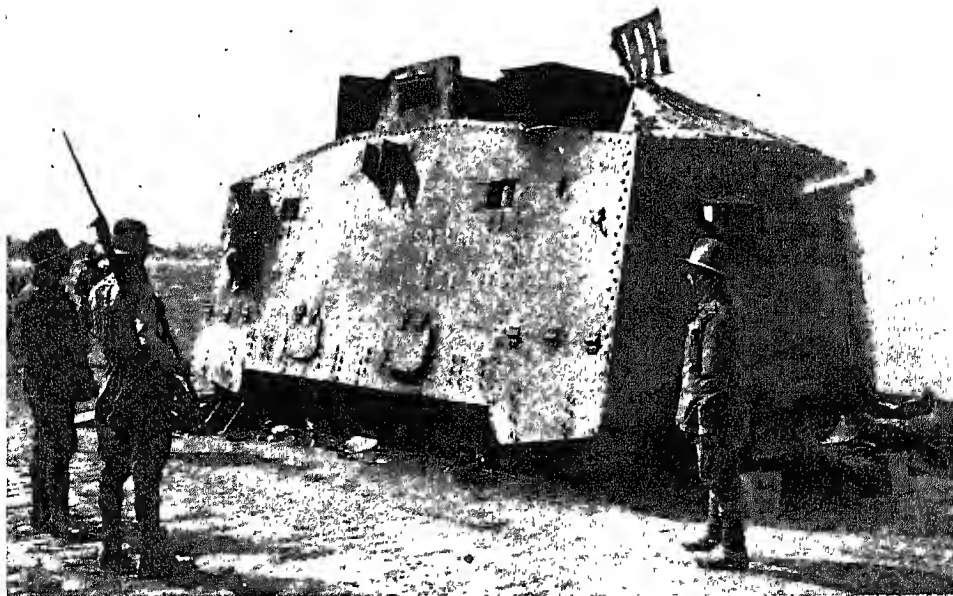
markable local success, for a penetration of 10,000 yards was effected without any preliminary bombardment. At Ypres 120,000 gunners entirely failed to accomplish what in this battle was done by 4,000 tank soldiers; 8,000 prisoners and 100 guns were captured, while the British casualties were about 5,000, and not 60,000 as on the first day of the battle of the Somme. Though a German counter-attack on November 30 rendered this success abortive, the tank had definitely shown that at last the spade and wire were conquered, and that because of this mobility could be reinstated.

While a tactical solution to three years of stale-mate on the Western front was being worked out, German diplomacy exploited the Russian Revolution with dire results to the Allied powers. The outcome of the Russian collapse was that in the spring of 1918 Germany was once again in a position to concentrate all her might against the western front, where she hoped to win a decisive victory before America could land her millions. In the eyes of her general staff the tank had found

no favour, but the astonishing success gained by a short and intensive gas bombardment against the Russians at Riga, on September 3, 1917, had opened their eyes to the possibilities of such an attack on the grand scale.

The last of the German offensive campaigns was launched on March 21, 1918. The front selected was seventy-four miles in extent, running from near Lens to La Fère. An enormous mass of guns was assembled, north of St. Quentin, one to every eight yards of front, and the British trenches were inundated with gas shells, and over-run. The attack was continued until April 4, when a penetration of thirty-eight miles had been effected, then it was closed down only to be followed by similar attacks west of Lille, south of Laon and north of Compiègne or April 9, May 27 and June 9.

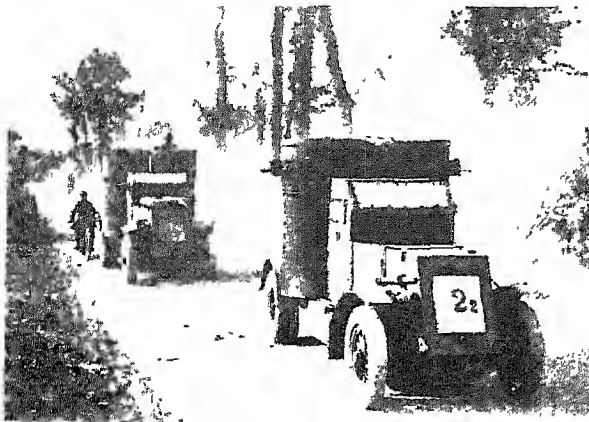
All ultimately broke down, for though tactical mobility was now possible the problem of administrative movement had not been solved. From November, 1915, to November, 1917, the movement of supplies was comparatively easy, but



GERMAN ACKNOWLEDGMENT OF THE TANK'S SUPREME UTILITY

Armour-piercing bullets from ordinary rifles, effective against the earliest tanks, were countered by thicker armour, and the specially heavy rifle in the opposite page (·530 calibre) was too cumbersome to be of much use. Mines were too uncertain in their action; and imitation was a very sincere form of flattery when the Germans introduced tanks of their own towards the end of the war as the only possible counterstroke. This one was taken by Australians near Vaux on August 4, 1918.

Photo, Australian Corps



THE CAVALRY OF FUTURE WARS

The tank did not displace the ordinary armoured car, whose greater speed makes it useful for reconnaissance work, in which this pair was engaged when photographed on August 25, 1918, or for rapid pursuit and attack in unshattered country when once complete mobility has been restored

Photo, Royal Tank Corps

tactical mobility all but impossible. Now the position was reversed, the attackers could move forward under tank or gas protection, but the badness of the roads in the battle areas and the destruction of the railways prohibited sufficiency of supply. Though by the summer of 1918 the frontages of attack had greatly increased, insufficiency of supply slowed the attacker down, and the defender thus gained time to press in on the flanks of the attack, which normally ceased when the depth of penetration had equalled half the width of the original base of operations.

The great battles that followed the German offensive were pre-eminently tank battles and not gas battles. On July 18 a French attack preceded by 235 small tanks was launched against the Germans in the Soissons-Château-Thierry area, and on August 8 one of the most decisive battles of the war was won by combined British and French forces against the Germans in the salient east of Amiens. This battle was undoubtedly the greatest tank battle of the war; 415 British tanks being engaged in it. Ludendorff has christened this day 'the black day of the German army,' and in very fact it was so. Not only was it a great tactical victory but also a great strategical one, for its repercussion was felt in every theatre of war. In Germany this disastrous defeat, though

at first hidden from the masses of the people, soon became apparent as blow after blow followed it on the western front, in Palestine, in Macedonia and in Italy.

The secret of penetration was now common property; nearly any sector of any front could be surprised and overrun, not up to the limit of gun fire but up to the limit of the system of supply. In Palestine the Turks were so thoroughly routed and demoralised that an old-style pursuit by cavalry was possible, but on the western front, though a war of movement had replaced trench warfare, it was in nature very different from the field

battles visualised before the outbreak of the war. On the whole the Germans fell back in good order, and whenever they halted and deployed their machine guns the pursuit was brought to a standstill, and only resumed after the machine guns had been dealt with by tank attack or artillery bombardment.

Though the war as a military struggle ended on November 11, 1918, it is of some interest briefly to examine the preparations which were then in progress in England for a spring campaign in 1919, for in them lurk the characteristics of future warfare. The Royal Flying Corps, which had been divided between the navy and army, in 1918 became a separate service—the Royal Air Force—and extensive preparations were being made to bomb Berlin and other important cities, and so attack the nerves of the enemy's civil population. A toxic smoke had been discovered that would penetrate the German respirator, and though it was non-lethal it could totally incapacitate a man. Eight thousand tanks were to be built, and the personnel of the Tank Corps doubled. To mitigate the difficulties of supply, ten thousand cross-country tractors were ordered from America. All these preparations in material pointed to the radical nature of the changes

that had taken place in armies since 1914 ; but none is so dramatic as the change in tactical theory, for the idea underlying the projected 1919 campaign was to be entirely different from that held in 1918.

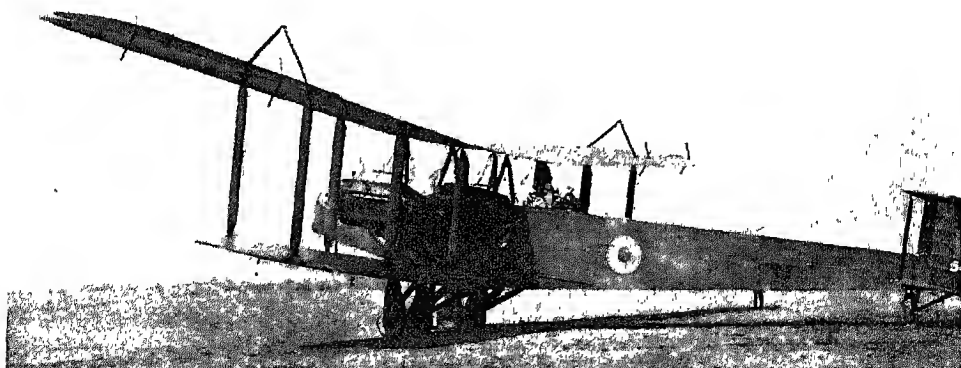
In place of striking at the enemy's front it was intended to strike at his rear—at his system of command and supply, the foundations of his fighting organization. A force of fast-moving tanks, under cover of smoke, or darkness, was to rush through the German front and attack the enemy's divisional, corps and army headquarters as well as his rail heads and supply centres. Once the hostile rear was in panic, his front was to be smashed by the now normal tank, artillery and infantry assault. As regards this system of attack, it is interesting to note that a somewhat similar operation was carried out before the end of the war. At the battle of Megiddo, which began on September 19, once the British guns had blown a hole in the Turkish line large forces of cavalry were passed through. These, falling on headquarters and communications, created such disorder and demoralisation that the whole Turkish front fell to pieces, and within a fortnight Damascus was occupied.

In spite of Megiddo, in spite of the 1919 project, in spite of four years and more of devastating war, of losses, and cost, and innumerable inventions, directly the war was over all great armies turned a

tactical somersault and went back to their 1914 organization with but few innovations. This reversion to type was the most astonishing tactical event of the Great War period.

At the beginning of this study it was stated that before the outbreak of the Great War both soldier and politician had failed to recognize that the activities of war are closely related to the activities of peace. Because of this separation war was considered as something totally different from peace, as the brutal is different from the human. War was accepted by those who knew anything of it as an instrument of policy. It was understood that peaceful political action should aim at attaining social contentedness and prosperity ; it was overlooked, however, that, if war is an instrument of policy, policy in war should aim at those very ends for which we strive by political action during peace time ; in short, that in war the aim of a nation is not merely the gaining of victory but the establishment of a better state when peace is restored than the one existing before the outbreak of hostilities. If this state is worse, then the war is morally lost by victor and vanquished alike.

It was because nations looked upon war purely as a physical struggle, a stupendous dog fight, that the Great War



HANDLEY-PAGE IN LEASH FOR AN OFFENSIVE THAT NEVER CAME

Painfully and slowly learnt, the lessons of the war were that with modern methods of defence all frontal attacks were useless without tanks, and that to re-establish mobility it was necessary to strike at the enemy's rear as well. By 1918 preparations were in hand for such an offensive in 1919. One operation contemplated was the intensive bombing of civil centres, for which a huge fleet of Handley-Page machines was ready. Some of them carried a single bomb weighing half a ton.

Photo, 'Flight'

was so destructive, and the peace which followed it so vindictive. They looked upon it as a physical struggle because armies were only organized to destroy, and soldiers were only educated to fight for a physical and not for a moral end. The soldier, surrounded by physical dangers, is bound to think destructively; he wishes to destroy the danger, not because it will influence the future peace but because it is threatening his existence. To change this essentially barbaric outlook on war, we must change the instruments of wars, the destructive weapons, and replace them by others which will render war far less brutal, and simultaneously protect the life of the soldier, and enable him to impose his will on his enemy.

Chemical science introduced not only humanity but efficiency and economy into surgery, and can do the same in war.

Gas is a weapon which may conceivably humanise war. It will not end all suffering and destruction, nor will it abolish war any more than chloroform has ended human suffering or abolished surgery. But it may mitigate the horrors of war, because its immense superiority as a weapon over lead and steel is that it can wound without killing, and soon, it is possible, will be able to cause insensibility without wounding. To paralyse an army by chemical action is surely better for humanity than to blow it to pieces. To send a city to sleep is surely preferable to bombarding it or starving it into surrender.

That gas will be used in the next war is all but a certainty, and that it will be used as a brutal lethal instrument is probable. But that it possesses the power of being used as a humane instrument of war is its supreme virtue; for, in spite of human stupidity, little by little will the human brute discover that it is more economical to impose his will on his enemy with the minimum of destruction in place of the maximum. The instrument will change him, if he will only change the instrument, because the instrument will create a new environment, and man is very largely the reflection of his surroundings. Here is presented to us a

radical change in the nature of war, a change which must influence all its elements and reform them.

If the moral idea of war replaces the brutal, then the military objectives selected must be such that they offer the lowest possible resistance to attack, for in general the more rapid the war the less suffering and destruction it entails.

There can be no doubt that the most delicate objective in war is the civil population, and the *raison d'être* of organized armies and navies has always been to protect non-combatants from the enemy's fighting forces. If this is not done, either the war ends disastrously, because the hand which wields the political instrument of war is destroyed, or the people rise, and organized warfare is replaced by guerilla warfare. In the past guerilla warfare was always possible; civil weapons—sporting guns, pitchforks and scythes—differed little from muskets, pikes and swords. But to-day the civil population is all but totally disarmed, for such weapons as they can collect would be useless against artillery, machine guns, gas and tanks. To-day, if the nerves of the civil population can be paralysed by fear the foundations are knocked away from the fighting forces protecting them, and, since the advent of aircraft, armies and navies can no longer directly guarantee their security as they cannot restrict movement in the air.

As the Great War advanced, this spectre grew more and more material, and it was for this reason that the British Royal Flying Corps became a separate service. London, Paris and other great cities were bombed, and by throwing the people into panic not only was the national will to win shaken, but war work was slowed down. A raid over a manufacturing district would frequently reduce output to zero for several days at a time, not because of the material damage done, though this was sometimes considerable, but because of the moral shock resulting. During the war high explosive bombs were alone used, but should these in the future be replaced by gas bombs, particularly bombs containing vesicant chemicals, the moral

shock to the civil nervous system may well end in a paralytic stroke.

The direct answer to air attack is air counter-attack, and this is so obvious that those to whom the obvious alone is apparent think that air power will totally replace sea and land power. Reflection will show, however, that this is not so, for besides the direct answer there is at least one very formidable indirect one.

Air force is based on ground organization just as armies and fleets are. This being so, the Achilles heel of the air is to be sought not in the clouds, but on the ground, in landing grounds, supply centres and workshops. Without an efficient and secure ground organization an air force is more helpless than a fleet that has lost its port, or an army that

has had its communications severed, because aircraft are so potently affected by the force of gravity that all heavier than air machines can only remain in the air for a few hours at a time.

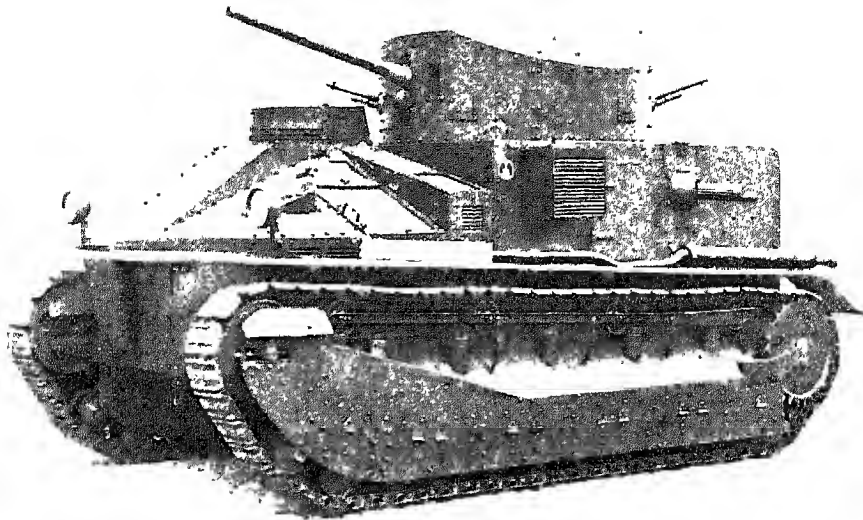
In May, 1918, it was realized that the most sensitive point in an army was its rear, and the result was the 1919 rear-attack project. With an air force it is exactly the same; air power can meet air power 'frontally,' but for air power to destroy the ground organization of air power is most difficult, since aircraft are slaves to gravity from whose clutches they can escape only if they are lightly equipped. Besides, to be certain of hitting a comparatively small target they must fly low and face the anti-aircraft defence of their enemy.



LONDON LYING DEFENCELESS UNDER THE PERIL THAT FLEW BY DAY

The danger in which the great cities of the world will stand in any future war is caught and crystallised in the picture painted by Henry Rushbury from memories of what he saw from the roof of the Royal College of Science, South Kensington, when the German aeroplanes appeared over London in daylight on July 7, 1917. Flying unharmed through a cloud of anti-aircraft bursts they are about to loose their freight of high explosive; what if the bombs had contained poison gas?

Imperial War Museum



SPEED, MOBILITY AND PROTECTION COMBINED : A MEDIUM TANK

Experiments in tank construction did not stand still after the Great War. Even before its end a light, fast-moving tank had been evolved, and since then the main object has been the construction of a weapon combining the protection and obstacle-crossing power of a tank with the speed of an armoured car. This is a British tank of the 'Medium' type (Mark II), weighing about 12 tons, with a speed of 20 miles an hour, it is an admirable weapon for outflanking movements.

Photo, War Office

If armies could move, let us suppose, a hundred miles a day in place of the present twenty (and remembering that a man in a motor car can easily travel four hundred miles in twenty-four hours, there is nothing impossible in this supposition), then land attack of the ground organization of the enemy's air power should not be a very difficult problem, unless this ground organization is effectively defended. To move at this pace demands a mechanical army, that is an army in which muscle power has been replaced by petrol power. To protect ground organizations similar forces must be used. Thus we see that the general adoption of aircraft as weapons of war will not abolish armies but will recreate them. In fact, the power of mechanical warfare in the air, though it will render obsolete muscular warfare on land, will simultaneously replace the old traditional military forces of to-day by mechanical forces—forces which though armoured can move at a high speed.

The armies of the future must therefore be organized so that they can protect and attack the rear services of an air force with extreme rapidity, in order to lessen the time in which aircraft can strike at the civil nerves. To expect

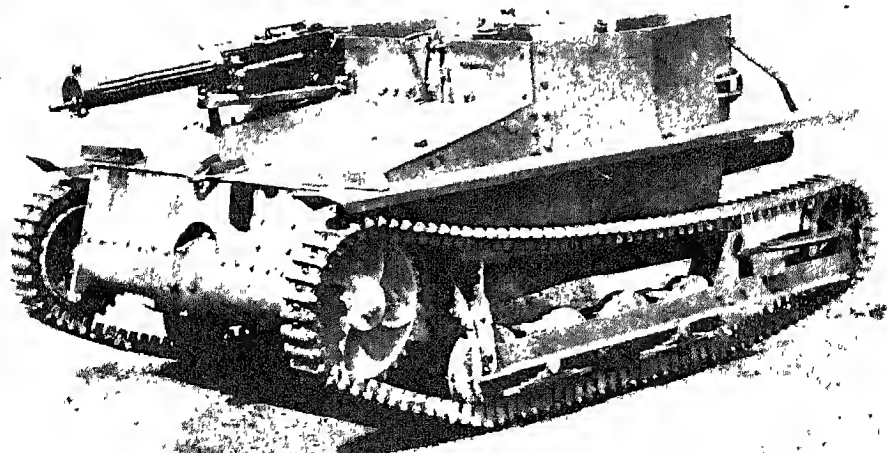
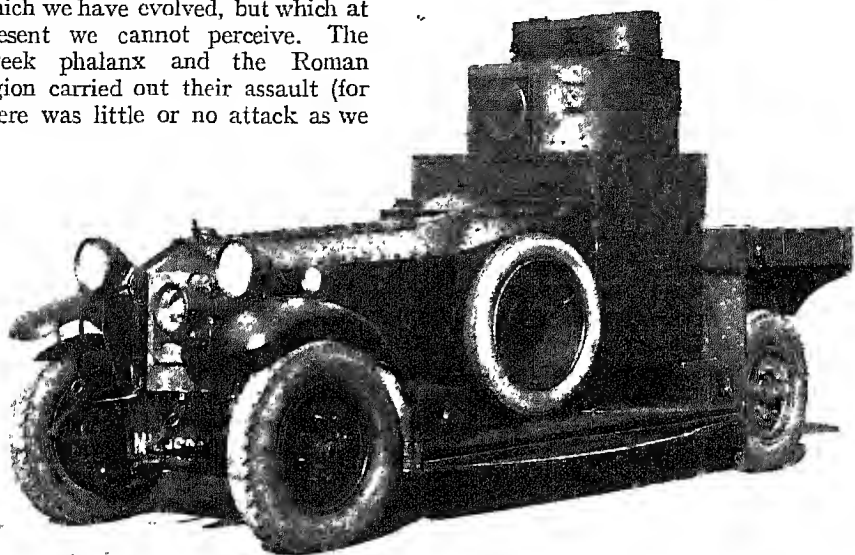
present-day armies to do this is to ask for the impossible, for they are tied to roads and railways, and are as dependent on these as a barge is on a canal. On ground suitable for machines of the tank type infantry are helpless when they meet them; cavalry are equally so, but possess the advantage of more speedy retreat, and horse-drawn artillery, though they can (with increasing difficulty) destroy mechanically propelled weapons when these attack them frontally, are easy prey when attacked in flank or in the rear. During the Great War the terror of the tank became so overwhelming that in September, 1918, the German higher command issued an urgent order that whenever tanks were signalled every gun in the neighbourhood was to fire on them. After the war General von Zwehl wrote: 'It was not the genius of Marshal Foch that defeated us, but General Tank.'

To meet the tank the gunner must mount his gun in a somewhat similar machine. He must be able to hunt the tank as well as fire at it, and if he is to be supported by other arms these too must move forward in mechanically propelled vehicles which, when necessary, can abandon roads and move across country. All supply vehicles must be able to do

likewise, or else the mechanical arms will be compelled to waste time in converging or retiring on roads and railways in place of pushing onwards. Here is opened up an entirely new form of war, a war of another dimension, when we compare it to the wars of the past.

We must go back a long way in history in order to paint in a background which will show up clearly the form of war which we have evolved, but which at present we cannot perceive. The Greek phalanx and the Roman legion carried out their assault (for there was little or no attack as we

know it to-day) in line. The soldiers linked their shields and virtually pushed their opponents over with their pikes and swords. In such battles the tactical idea was that of the linear attack, and discipline, courage and brute strength won the fight. In the days of Frederick the Great the tactical idea was the same: two lines approached to within thirty



STEPS TOWARDS THE MECHANISATION OF THE BRITISH ARMY

At the top is the latest type of armoured car, intended chiefly for reconnaissance work by cavalry units, but capable of useful employment against the rear and flanks of marching forces, it has Rolls-Royce engines. Below it is a Carden-Lloyd Mark VI armoured machine-gun carrier, having a maximum speed of 30 miles an hour. Since its crew consists of two men only, it represents the first step towards the armoured infantry and a return to the days of the mailed knight.

Photos, War Office

paces of each other and then by volleys of musketry pushed, or rather blew, each other off the face of the battlefield.

Yet the thirty paces between the two lines does constitute a difference, for there is now a small area, a kind of no-man's-land, between the two lines. This area is all important and one of the great problems of war during the last hundred and fifty years has been to discover methods of taking advantage of it: how to supply the soldier with weapons of greater and greater range, so that he can stand on one side of this no-man's-land in safety, and yet hit his enemy standing on the other side. It was this area and the idea it held which forced the soldier to increase the range of the rifle and the gun, and when the range became so great that it was difficult to hit the target with a single shot, to invent the machine-gun, and to turn solid cannon balls into hollow shells, and to fill these shells with bullets.

Then came the Great War, and still the race went on. Fire power became so terrific that soldiers could no longer fight on the surface of the ground, so they dug trenches, and thus turned the area into a shield. Then others attempted to dig them out with shells,

The expansion of No-Man's-Land and, as shrapnel is ineffective, shells were filled with high explosives; and as this proved uneconomical the very air above the area was used as a vehicle for poison gas. Thus no-man's-land, the area between the contending armies, expands in all directions—upwards into the sky, and downwards into the earth. From surface warfare we enter what may be called 'cubic' warfare; warfare that is certainly so when aeroplanes appear in their hundreds, and attack from above the rear of the entrenched masses of men.

The war began as a linear struggle and it ended as such, but with this difference: tanks could cross bullet-swept areas, and aeroplanes could fly over them, and gas could inundate them. And this difference is daily growing. During the war it was discovered how to contract the area between two lines of men, until armoured tanks could approach the enemy's machine guns as closely as the legionaries of

Caesar could approach the Gauls. They could do more than this: they could destroy the machine guns and pass onwards. In those days they could move at four miles an hour, to-day they can move at forty. Consequently they need no longer attack the front of an enemy, for they can move round his front and attack his rear, that is, where he is least prepared to meet an attack. Thus we see the whole art of war changing. Fronts are crumbling away, because the soldier has discovered how to cross no-man's-land between them. Areas are becoming more and more the true battlefields; areas perhaps several hundreds of miles deep and broad, because the radius of the aeroplane is increasing daily, and tanks can now move a hundred miles in twenty-four hours, and armoured cars two to three hundred.

It is mainly because of the changes in the element of mobility that we see these startling changes evolving in methods of protection.

The element of Protected Mobility In its turn protected mobility must influence offensive power. Gas warfare will wipe out the armies of to-day, but how will it influence the mechanical armies of the future? The answer obviously is, to a lesser degree; because men will be largely protected from vesicant chemicals by the armour of their machines, and if necessary these machines can be made gas-tight. As the armoured-cavalry age gave way to the earth-seeking age of infantry, and as the musket ousted the lance, so will the present infantry age give way to an armoured-artillery age in which the gun will oust the rifle.

The tank period which we have examined is in fact but the beginning of this new artillery age in thin disguise; for the tank itself is only a mobile gun mounting, and in consequence the land battles of the future will be pre-eminently artillery battles, short, sharp and decisive—the destruction will be insignificant, and casualties comparatively few. On these armoured battles will largely depend the action of aircraft, which will attack the nerves of the enemy's people, and so strike at the foundations of the hostile fighting forces. Such will be some of the future developments of the offensive element.



The tank first saw action on September 15, 1916. There were two types of this machine: the male, equipped with two 6-pounder guns and a machine gun, and the female, armed with machine guns only. Above is shown a Mark I male tank on the battlefield of the Somme in 1916.

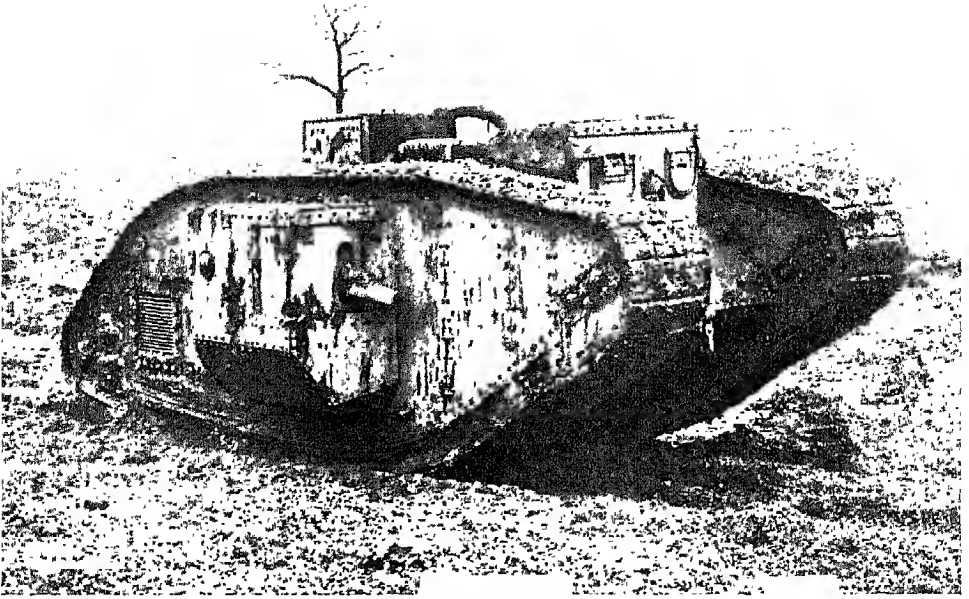
Photo, War Office



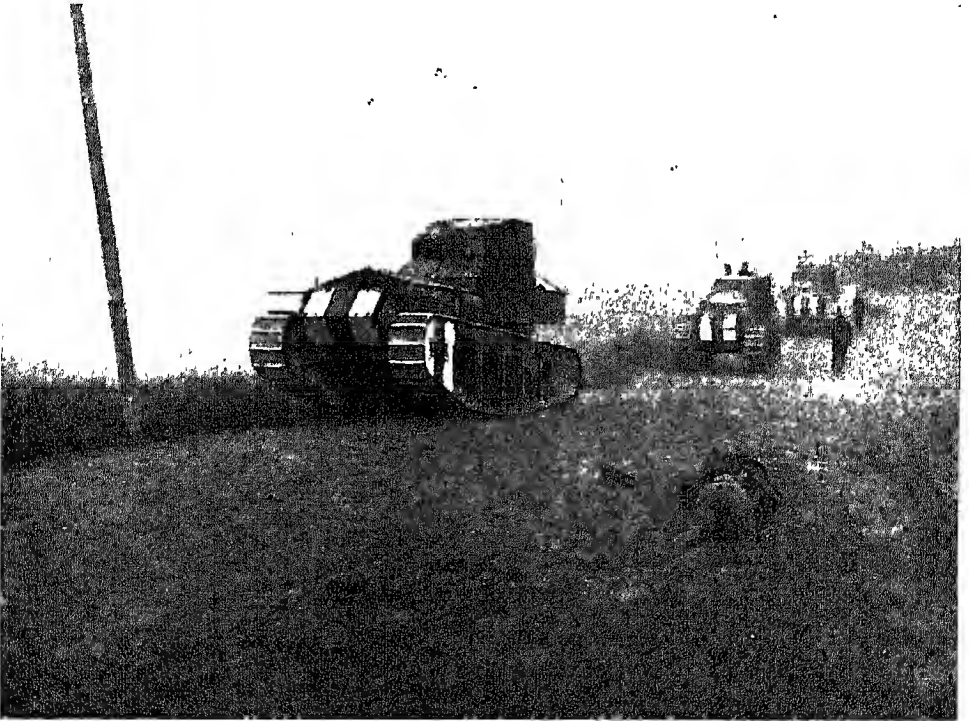
A British invention, the tank was designed to overcome obstacles which restricted the mobility of infantry, of which the most formidable were bullets, wire entanglements and earthworks. At the battle of Cambrai, on November 20, 1917, the Mark IV tank, of which one is here shown about to 'topple' at Wailly, proved its value as a new engine of war; it revolutionised tactics by conquering the spade and wire and reinstating mobility.

ADVENT OF AN INNOVATION IN WARFARE : HEAVY TANKS

Photo Imperial War Museum



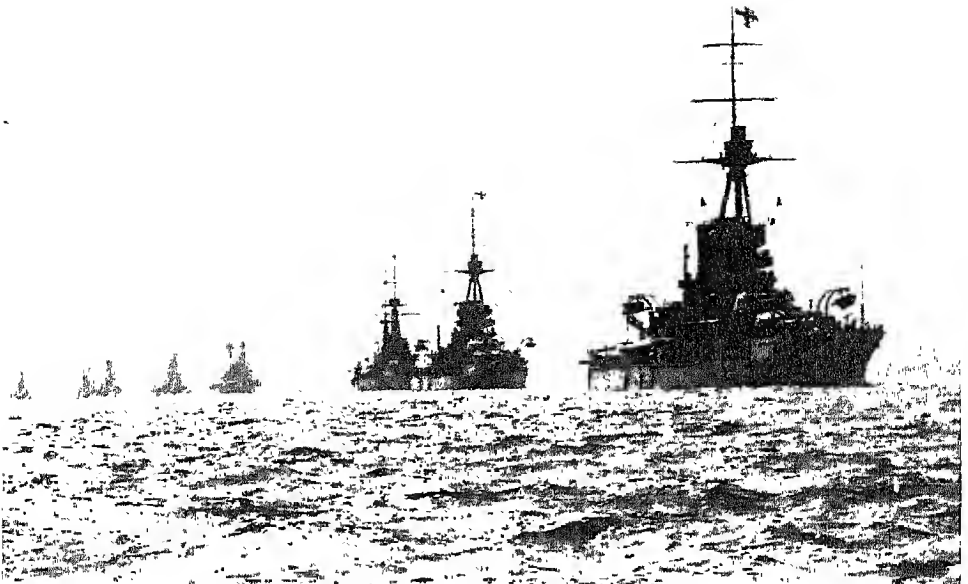
In 1918 the Mark IV tank was replaced by a Mark V model, a faster and more handy machine, which led the British assault on August 8, 1918, and so decisively defeated the German forces that General Ludendorff christened this day 'the Black Day of the German army.'



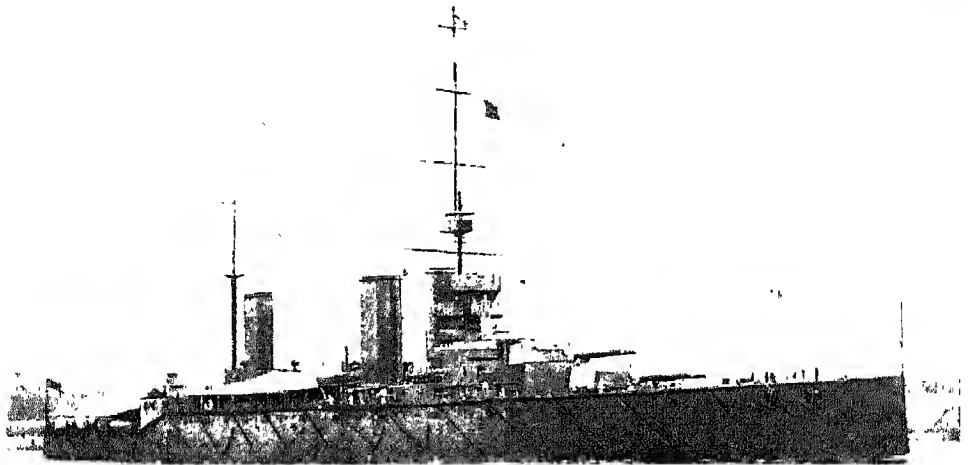
Besides the heavy tanks, in 1918 a medium machine known as the Medium A, or Whippet, tank was introduced as a 'cavalry' or pursuit weapon. It could move at from eight to ten miles an hour, and its crew consisted of three men. In the above photograph three of these machines are seen advancing to attack during one of the great battles of August, 1918.

CHIEF TYPES OF BRITISH TANK IN OPERATION IN 1918

Photos, Mechanical Warfare Supply Dept., and (bottom) War Office



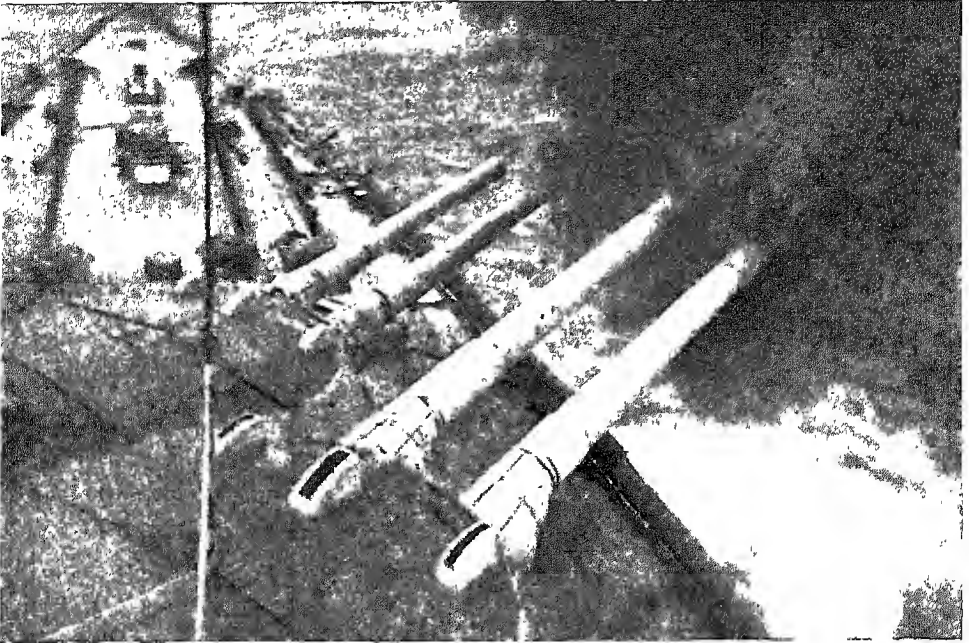
The leader of this line of battleships is the Iron Duke, flagship of Lord Jellicoe while in command of the Grand Fleet, 1914-16. Vessels in this class carry ten 13.5-inch, twelve 6-inch, and four 3-pounder guns; stout armour up to 12 inches thick covers their main gun positions and conning tower.



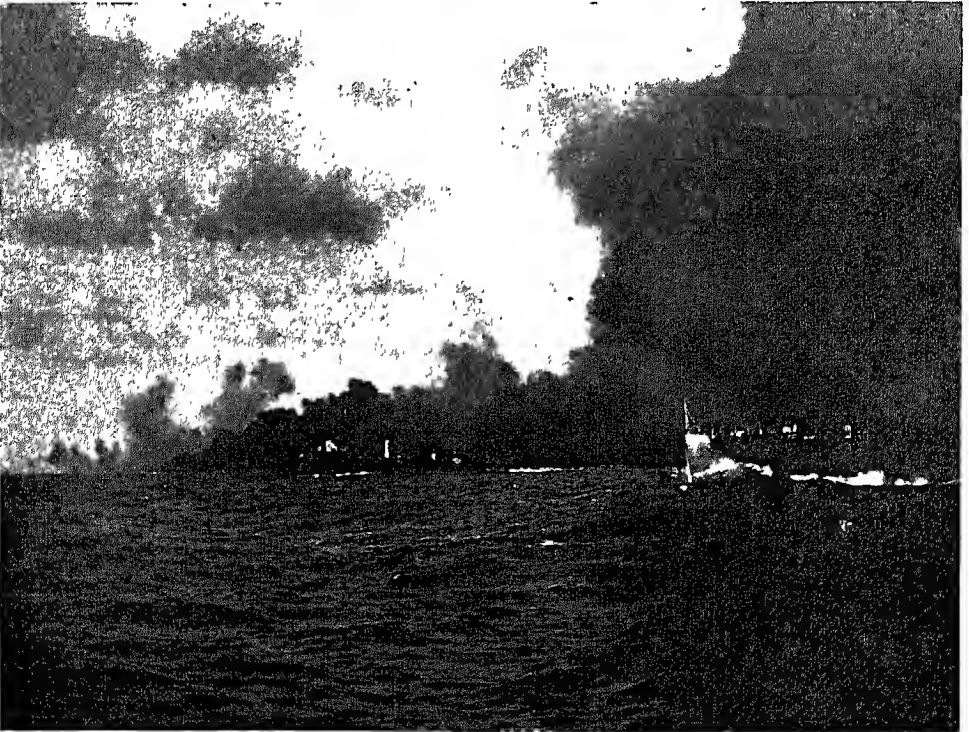
Badly hit by German shells at the battle of the Dogger Bank on January 24, 1915, Sir David Beatty's flagship, the Lion, was compelled to retire from the line, and was sent to Newcastle for repairs. She was one of the battle cruisers under Beatty's command at the battle of Jutland in 1916, and again had a narrow escape, being badly damaged. This photograph was taken towards the beginning of the war.

ARMoured SHIPS THAT WERE THE STRENGTH OF THE BRITISH NAVY

Photos, Stephen Cribb, Southsea, and (bottom) Abrahams & Sons, Devonport



This war-time photograph shows an actual discharge of a salvo of 13 5-inch guns from a British battle cruiser. With two exceptions, all British battle cruisers after the Indomitable class carried eight 13 5 guns, a simultaneous discharge of four guns usually constituting a salvo.



During the Great War destroyers were able to hamper the attack of an enemy fleet on capital ships by threatening a torpedo attack and so forcing the assailant to turn away, or by putting up smoke screens. The vessels in the photograph are seen racing ahead of the main fleet and throwing out a screen to mask the movements of the battleships

POWER, SPEED AND GUILE AS USED IN NAVAL WARFARE

Photos, Stephen Cribb, Southsea

THE ROLE OF SEA POWER IN THE WAR

How the Activities of the Belligerent Navies
affected the Issue of the Struggle on Land

By H. W. WILSON

Naval and Military Critic and Assistant Editor of the Daily Mail;
Author of Battleships in Action, etc.

THE war at sea between the Allies and the German powers brought new problems for the great navies to solve. All previous naval wars had been fought in a space of two dimensions, on the surface of the sea. This war was fought, not only on the surface, but also beneath the surface, where was the zone of the submarine; and above the surface of the water, where airships, aeroplanes and seaplanes co-operated in ever-increasing number. It was, therefore, theoretically possible for one side to command the surface and for the other side simultaneously to hold the zone of water beneath the surface, or the air above it. The change was so far-reaching that no thinker had been able to foresee its full effects, or prepare adequately to meet it.

All the navies, all the staffs, groped in the dark. That the submarine was certain to be formidable they recognized; indeed, they rather exaggerated than under-estimated the danger from it. They had not in peace been able to devise satisfactory methods of fighting it. Depth charges, mines of a type that exploded when a certain depth was reached and shook or shattered the submarine, did not exist in an effective form before 1914; and, if they had done, could not have been dropped in manoeuvres on friendly crews. Nor was it practicable to try such devices as nets for entangling the propellers of submarines, which would probably have involved the loss of these craft and the death of all on board them. In the British manoeuvres of 1913 the hits claimed by submarines were so numerous as to frighten the Admiralty;

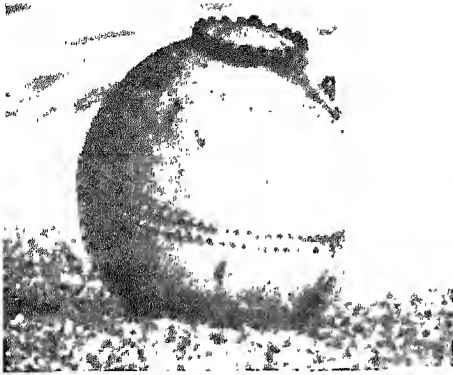
the German manoeuvres of May, 1914, brought equally startling results.

So, when war began, each side in planning its operations showed great anxiety of the risk from submarines, having no real means of combating them. And the risk soon proved to be terrible. The episode of the armoured cruisers *Aboukir*, *Hogue* and *Cressy*, sunk in succession by a single insignificant German submarine, *U 9*, with the enormous death-roll of 1,459 officers and men, proved that without special precautions ships of the pre-Dreadnought type were helpless against submarines. Some 36,000 tons of shipping were sent to the bottom by a craft of only 500 tons. Nothing like this had ever been known in naval war before.

Added to the peril from the torpedo was the danger from the mine, one of the most insidious and merciless weapons ever invented, and strewn by the Germans on the high seas, in the fairways of ocean traffic. New horrors of Naval War and even off remote points on the coasts of

the Dominions. Thus the seafarer was never safe when out of port. A crash would be heard, a column of smoke and water would shoot up; and the structure of steel in which he was travelling would collapse and leave him helpless in the water.

At the outbreak of war aircraft co-operation with the fleets at sea did not exist, though the British had one aircraft carrier in service and the Germans had one Zeppelin ready; two others had been destroyed by accidents just before the war. Effective co-operation of the air arm with the fleets was only just coming



THE FLOATING MINE

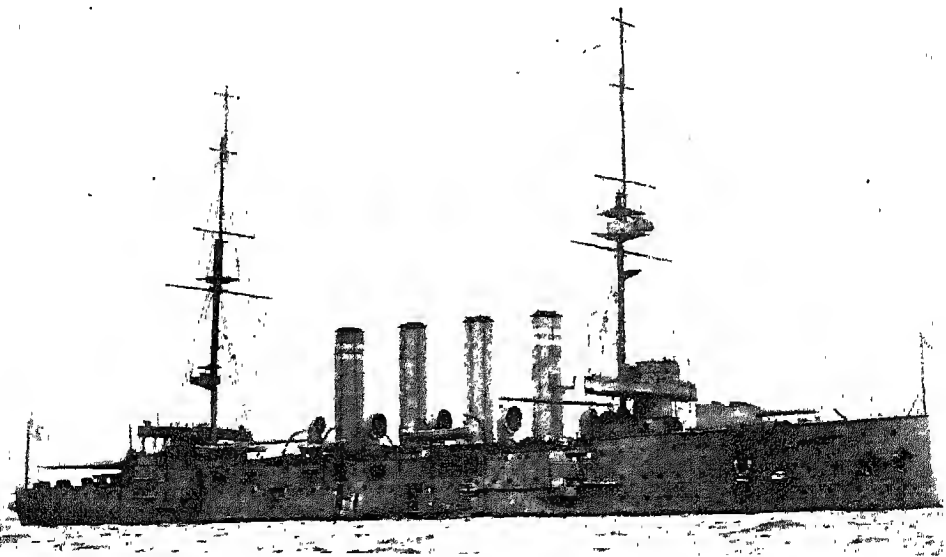
Naval tactics were greatly changed by the invention of floating mines with which German destroyers sowed the seas, thus rendering all vessels liable to sudden destruction. This photograph shows a floating mine washed ashore.

Photo, Sport and General

into existence when the war closed, and the world is still uncertain what its future influence will be. The aeroplanes and seaplanes of 1914 were crude and weak machines, and carried no bombs that could hurt a battleship. With one or two unimportant exceptions they were even

without any machine-gun armament or satisfactory wireless equipment. Their climbing power was so limited that they were of little use for reconnoitring. The Zeppelins which Germany possessed were far more formidable than the aeroplanes of 1914, as they were supplied with respectable bombs and could rise to 8,000 feet, but they were helpless in storms. Though, wisely used, they might have rendered immense service as scouts in the North Sea, they accomplished little.

In spite of these new weapons and the perplexities which they brought, it was soon proved that the importance of commanding the sea had grown and not diminished. When whole nations and not a small percentage of their able-bodied manhood took the field, even countries which till the war had been self-dependent, or nearly so, were at a grave disadvantage if they could not import raw materials, half-manufactured articles, munitions and food. The collapse of Germany was, in large measure, due to the pressure of economic factors, and that pressure was imposed by the British blockade which strove to cut off all Germany's foreign sources of



A VICTIM TO SUBMARINE WARFARE : H.M.S. HOGUE

The advent of the submarine provided a new and disturbing element in the naval encounters of the Great War. This was drastically demonstrated on September 22, 1914, when three British cruisers, Cressy, Aboukir and Hogue, on patrol duty off Holland, were torpedoed and sunk by the German submarine U 9. These cruisers, being unaccompanied by their destroyers, were particularly helpless before their unseen assailant. The loss of life on the Hogue was 372 officers and men.

Photo, Sport & General Press Agency



THE GERMAN CRUISER MAINZ GOING DOWN OFF HELIGOLAND

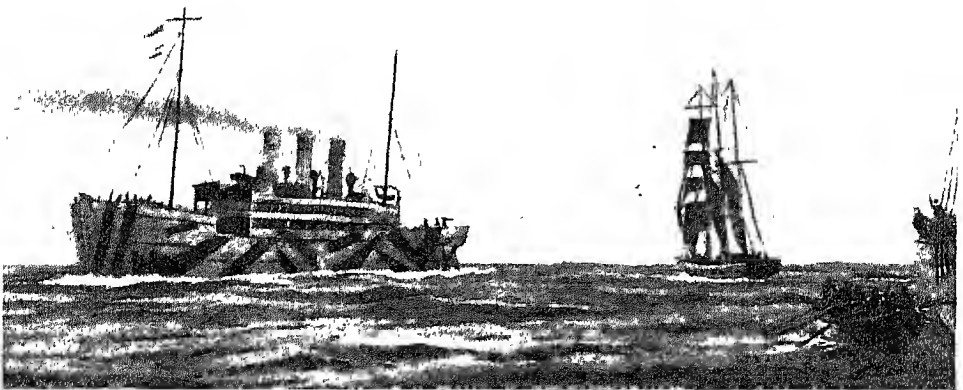
The naval engagement that took place between the British and Germans off Heligoland on August 28, 1914, resulted in a decisive victory for the former. This photograph shows the Mainz, one of the three German light cruisers in the battle, sinking rapidly, while the British destroyer retiring on the left carries on board members of the stricken ship's crew.

Copyright, ' Illustrated London News '

supply. Without control of the surface of the sea by the British navy the blockade would have been out of the question. In any case the blockade was not of the old type in which the blockading squadrons cruised close to the blockaded ports. The British ships operated at a great distance, holding the two entrances to the North Sea. The change was necessitated by the development of the mine and torpedo and the altered conditions of naval war.

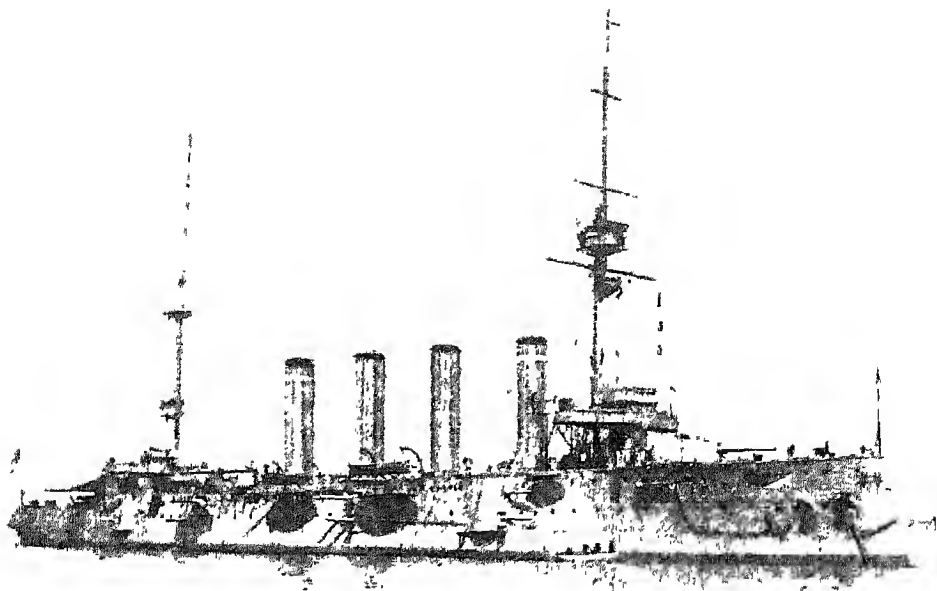
The Germans knew that a blockade operates but slowly, and as they were convinced of their capacity to end the war very quickly on land by crushing

France, they altogether under-estimated the effect of sea power and the danger of forcing the British Empire into conflict with them. They were prepared for a six months' struggle, so that they were not alarmed at the possibility of having their foreign trade interrupted for that period. The British with the British Allies gained the command of the sea in European waters with startling speed and ease at the very outset of the war, everywhere outside the Baltic. This was largely because fortunately enough the main British fleet was mobilised when war began. Its mobilisation was known to everyone in advance, and had been arranged long



THE BRITISH BLOCKADE IN OPERATION DURING THE GREAT WAR

The German government declared a blockade of the United Kingdom in February, 1915, issuing orders to their submarines to sink all merchant ships at sight. In March the British replied by declaring a blockade of Germany, virtually crushing her overseas export trade. The subject of W. L. Wyllie's drawing is the boarding of a neutral vessel to search for contraband by an armed merchantman of the Tenth Cruiser Squadron. Note the elaborate camouflage (see page 4839).



H.M.S. GOOD HOPE : ADMIRAL CRADOCK'S FLAGSHIP

Commissioned for service as Cradock's flagship in August, 1914, the Good Hope was an old vessel which had seen almost continuous service as a flagship of cruiser squadrons from 1902-12. On November 1 Cradock's fleet came into contact with von Spee's squadron off Coronel, and Cradock bravely engaged a force vastly superior to his own. In a brief action the Good Hope was struck by repeated salvos from the Scharnhorst and sank with her admiral and all hands.

Photo, Topical Press Agency

beforehand, in March, 1914, when no shadow of war darkened the political sky.

The early engagements were of no very serious importance. In the battle of Heligoland on August 28, 1914, three German light cruisers and a destroyer were sunk by British cruiser squadrons, including Beatty's battle cruisers; but the British were so overwhelmingly superior in force that nothing else was to be expected. The Germans blundered badly in risking a few weak ships against such tremendous antagonists as the British battle cruisers. On neither side in this engagement did submarines effect anything of importance, though the information obtained by

the British submarines was of great help in enabling a severe blow to be struck.

Another valuable means of information

was provided by the wireless of both sides. Each fleet listened on sensitive receiving instruments for the signals of the other. This was one of the new conditions of operations in the Great War; there had been nothing even remotely resembling it in the past. From the general superiority of its listening service, the greater excellence of its instruments, the stricter care shown in forbidding wireless signals when moving against the adversary, and the fortunate accident that in August, 1914, the German ciphers and



ADMIRAL CRADOCK

Sir Christopher Cradock (1862-1914), whose career ended at the battle of Coronel, had earlier served in the Sudan and China. He was placed in command of the Atlantic Fleet in 1911.

Photo, Elliott & Fry

signal books had been captured by the Russians in the wreck of the German cruiser *Magdeburg*, and transmitted to the British, the British navy had an important advantage over the Germans in this matter. And thus, whenever the Germans made an important move in the North Sea, they found British forces mysteriously on the alert and waiting to engage them. Even when the German ciphers were changed and became more difficult to read, it was possible to ascertain from the character of the signals passing when anything momentous was on foot.

In the distant seas there was considerable trouble for the British owing to the failure of the Admiralty before the war to build sufficient fast cruisers and to place them in the proper strategic positions. Von Spee, who commanded the formidable German cruiser squadron in the Far East, was a particularly dangerous antagonist



COUNT VON SPEE

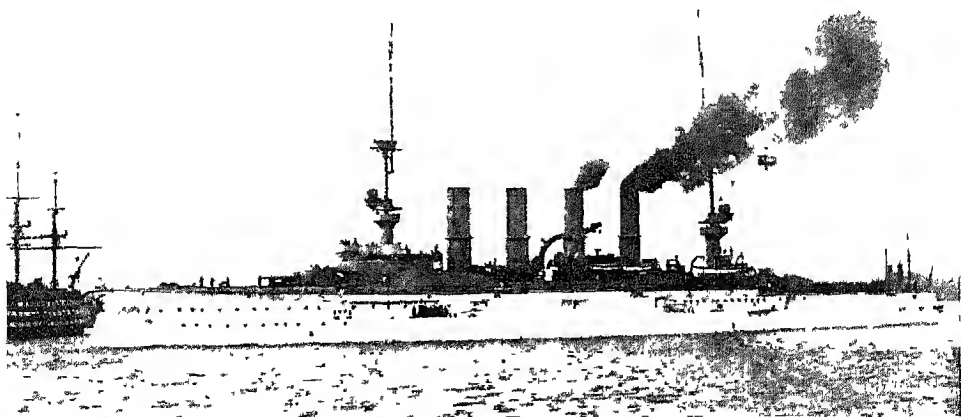
Born at Copenhagen in 1861, Maximilian, count von Spee, was one of the creators of the German navy in which he served. He commanded the Far Eastern Squadron in 1914.

Photo, L. N. J.

from the high quality of the gunnery in his two large armoured cruisers *Scharnhorst* and *Gneisenau*, which had won the Kaiser's cup for shooting in two consecutive years before the war. Leaving Kiao-chau when relations became strained, he vanished to a remote island in the northern Pacific and there waited for the outbreak of war. When it came, he crossed the Pacific to the neighbourhood of the west coast of South America and threatened the nitrate traffic, which was extremely important, because nitrates were then indispensable

for making munitions and were only manufactured synthetically, by obtaining nitrogen from the air, on a small scale in Germany and Norway in 1914.

The Admiralty sent against Spee's powerful ships Admiral Cradock with a small and weak squadron, the crews of which were for the most part composed of



THE SCHARNHORST IN BRITISH WATERS BEFORE THE WAR

On November 1, 1914, Admiral von Spee's squadron sank Admiral Cradock's cruisers at Coronel. Spee then steamed to the Falkland Islands, where, on December 8, he encountered a British squadron under Admiral Sturdee. The ensuing naval action resulted in a complete triumph for the latter and the destruction of the German squadron. The *Scharnhorst*, Spee's flagship, here seen near the Victory in Portsmouth harbour, put up a stern fight before sinking with all on board.

Photo, Stephen Crabb



ADMIRAL STURDEE

Sir Frederick Charles Doveton Sturdee, born in 1859, entered the navy in 1871. He was in command at the battle of the Falkland Islands in 1914, and fought at Jutland. He became admiral of the fleet in 1921.

Photo, Elliott & Fry

reservists and most dangerously inferior to the Germans in gunnery. Interpreting a badly worded telegram from London as an order to attack, Cradock steamed up the west coast of Chile with the Good Hope and Monmouth, both old armoured cruisers; the Glasgow, a modern light cruiser but useless against armoured antagonists; and an armed merchantman, the Otranto. Off Coronel he met Spee, whose two armoured cruisers were each in battery markedly superior to any vessel in the British squadron. This material superiority was rendered still more crushing by the superior skill of their gunners.

The engagement that followed on November 1, 1914, was utterly disastrous to the weaker force. The Germans, without themselves receiving a single serious hit, shot the Good Hope and Monmouth into tangles of steel wreckage. Their salvoes beat with appalling rapidity every fifteen seconds on the two doomed British ships which, labouring in a heavy sea, could not work all their guns and so were further handicapped. What hap-

pened on board them no man knows, for all in them perished. But from the German ships it was seen that great fires broke out in them, as all the evidence suggests from the extreme inflammability of the ammunition they carried. Violent explosions were also observed. Fifty-three minutes after the action had opened, the Good Hope disappeared in the darkness and the tumultuous sea. She must have foundered with Cradock and all on board. The Monmouth sank a little later, fighting to the very end against hopeless odds. The other two British ships escaped. But the sacrifice of an admiral, two cruisers and 1,653 officers and men, with only a few scratches on the German ships to show for it, was a grievous blow, though the heroism which the British crews displayed was magnificent. The business in war is to win, not to be killed; and fearful indeed is the price that has to be paid for mistakes at sea.

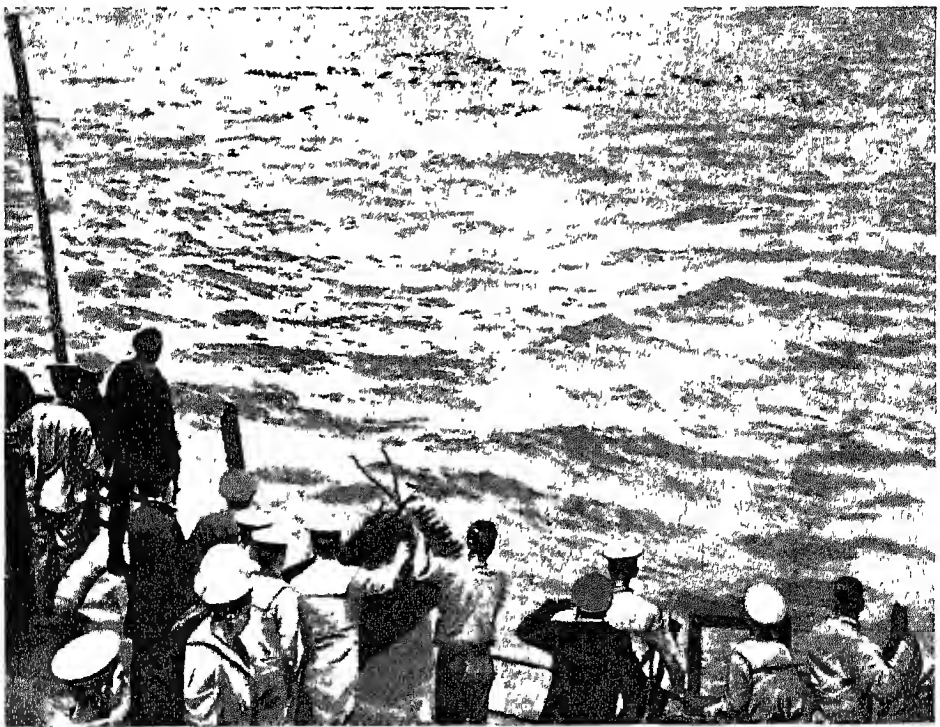
Before the result of this battle was known Lord Fisher had become first sea lord; and immediately he learnt of the disaster he took measures to make an end of Spee. He detached from the Grand Fleet in British waters

two battle cruisers, **Expedition to**
vessels overwhelm- **the Falkland Islands**
ingly stronger than
the German armoured cruisers. He did this in the face of strong remonstrances, and boldly took the risk that in the absence of the two all-important ships the German main fleet might attempt a blow in the North Sea. He placed them under Admiral Sturdee, whom he sent to the Falkland Islands off the south-east coast of South America, with instructions to sink every ship in Spee's force. Spee bore himself gallantly and modestly after his victory; but he, too, now committed one of those mistakes which are so cruelly punished in war. Against the advice of one of his most experienced officers, Captain Maerker, he determined to steam to the Falklands, seize the governor as a hostage for the German governor of Samoa who had been captured by the British, and destroy the British coaling station in those islands.

He carried out his rash plan, having no suspicion of the dreadful surprise that awaited him. Early on December 8 he

was off the Falklands, where Sturdee had just arrived with the two overwhelmingly powerful battle cruisers. Dense clouds of smoke rose from the interior of the harbour as the Germans approached. They were really caused by the British raising steam for battle, but they led some of the German officers to imagine that a great success was at hand and that the British were burning their coal and stores as the preliminary to surrender. One or two of the Germans, however, thought they could discern through the smoke tripod masts. These masts at that date were carried only by ships of immense fighting force such as battle cruisers or Dreadnought battleships. But as yet most of the observers in Spee's ships did not make out tripod masts in the harbour. Not till too late did they discover that battle cruisers were actually there, and then at Spee's order they took immediately to flight.

The British battle cruisers could steam 25 knots to the 21 which was Spee's utmost speed, and they were so superior in armament that the issue was never in doubt. The battle that followed was protracted because Sturdee determined to fight at extreme range, so as to avoid any risk of serious damage to his two precious battle cruisers. The day was a brilliant one; the colour of the sea was the deepest blue, and the distance of vision was exceptional when the German ordeal began. About 1.30 in the afternoon the guns opened and with some intervals continued their grim work all that afternoon till about 4 p.m., when the Scharnhorst with only one of her four funnels standing and with great fires blazing in her amidships, slowly turned over and sank, taking with her to the bottom Spee and all who had not been killed in the battle. There could be no attempt at rescue because the engagement



THE LAST OF THE GERMAN BATTLE CRUISER GNEISENAU

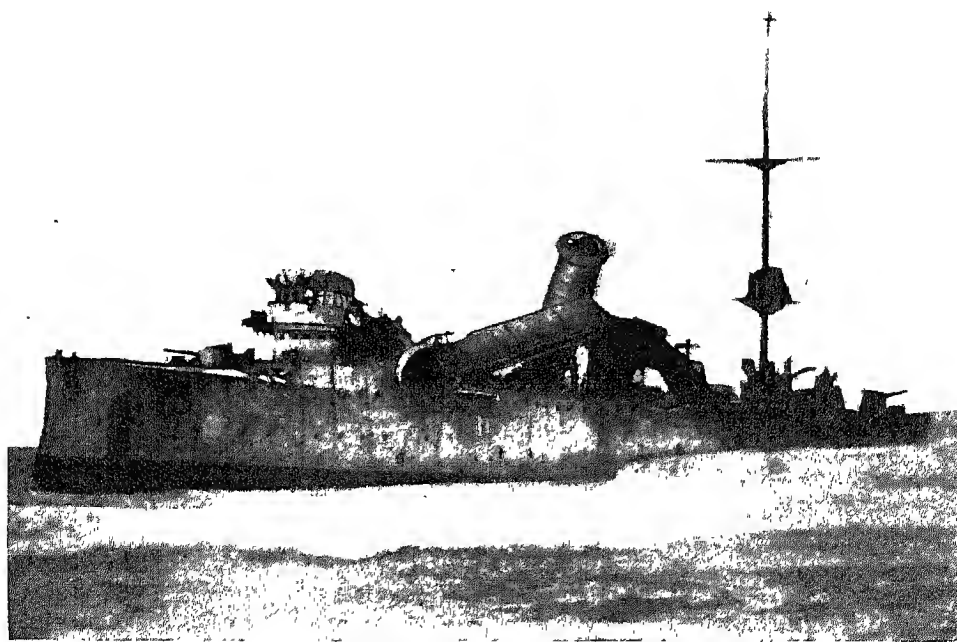
In this photograph, taken from the British warship *Inflexible* after the battle of the Falkland Islands, the survivors of the Gneisenau's crew can be seen struggling in the water. The Gneisenau was a sister ship to the Scharnhorst, and their destruction, together with the rest of Spee's squadron, struck a severe blow at German power on the sea. A number of survivors were taken aboard the British battleship, but many died from exposure to the bitter cold.

continued. The Gneisenau's existence was protracted for another two hours before she, too, went down after fearful losses had been inflicted on her officers and men. So icy was the water, though it was then summer in the Southern hemisphere, that many of the Germans died of exhaustion in the sea or in the boats after the British had reached them. Their total loss was about 1,540.

Two of the three light cruisers with Spec were destroyed the same day by the other British ships, with heavy German loss of life and almost without casualties to the British; but one of his ships, the Dresden, escaped and for many weeks eluded her pursuers. In the battle between the more important armoured ships an enormous quantity of ammunition was expended by the British, but the two battle cruisers did their work and returned with only

the most trivial damage. Sturdee could report that the total loss in both of them was no more than one man killed. Like Coronel, this battle shows that in modern conditions a weak surface squadron has very little chance of inflicting serious damage or loss on a strong squadron.

The scattered German cruisers were hunted down one by one, and the sea was cleared of them, but not until they had inflicted considerable loss upon the Allied merchant services. The most troublesome of them were the Emden and Karlsruhe. The Emden was driven ashore and wrecked at the Cocos Islands, where a final touch of horror was given to her destruction by the huge land crabs which attacked her wounded. The Karlsruhe was sunk by an explosion on board, probably caused by untrustworthy ammunition or oil fuel. The Germans would have



THE EMDEN ENDS HER ADVENTUROUS CAREER ON THE COCOS ISLANDS

The German light cruiser Emden, launched in 1908, inflicted considerable damage upon British and allied commerce during the early months of the Great War, and her commander, von Müller, earned a reputation for his humanity towards the crews of the vessels he sank. The Emden was driven ashore at North Keeling Island on November 9, 1914, after a vigorous action fought with the Australian cruiser Sydney, to which she finally surrendered. Von Müller was among the saved.

Photo, Imperial War Museum

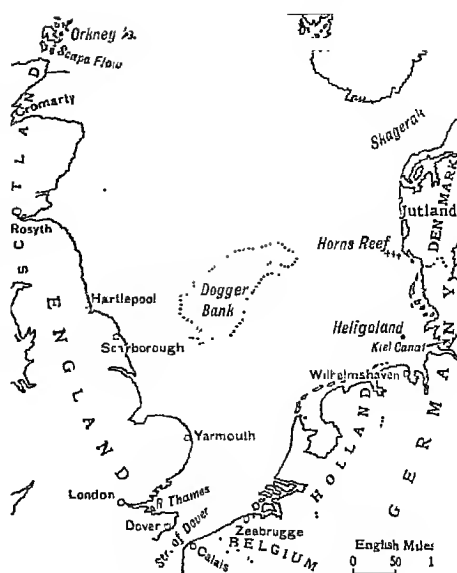
been caught much more quickly if the Allied vessels searching for them had been equipped with scouting aircraft, as most light cruisers have been since the war. Time after time they eluded pursuit by a mere hair's breadth.

In all these early weeks of the war the British control of the Channel remained undisputed. At no point then or subsequently were the German surface ships able to interfere with the transport of troops and supplies. Day after day a regular service traversed the Strait of Dover within easy reach of the German torpedo craft, when the Germans on land seized Ostend and Zeebrugge. Division after division of British crossed the great oceans from the Dominions moving to France. Not a single troopship was sunk in this stage of the war, and in the later months of the conflict, even when the German submarine campaign reached its full height, the loss was extraordinarily small, much smaller in proportion than that inflicted on the Japanese by the Russians in the war of 1904-5.

The High Sea Fleet, as the main German fleet was called, to the universal surprise,

made no effort to attack the British troopships. Early in the war its leaders were informed by Moltke, the German chief of staff, that the German army was quite capable of settling both with the French army and with the British troops that were being transported to France. This was an error on his part, but unquestionably at the outset the Germans came very near winning the war on land. What offensive movements the High Sea Fleet did make at sea were directed towards bombarding British ports.

The Grand Fleet, as the British main fleet was named after the outbreak of war, had many serious difficulties to overcome in its operations in the North Sea. There was no base prepared for it which was reasonably secure against attack by submarines and destroyers and provided with the plant required for keeping a large naval force in good fighting order. The Firth of Forth could not be used till late in the war when enormous booms had been thrown across its entrance so as to enclose



PERILS OF THE SCAPA BASE

From this map of the North Sea it will be seen that Heligoland, the German advanced naval base, was almost twice as far from Scapa Flow, where the British Grand Fleet was usually concentrated, as from the mouth of the Thames.

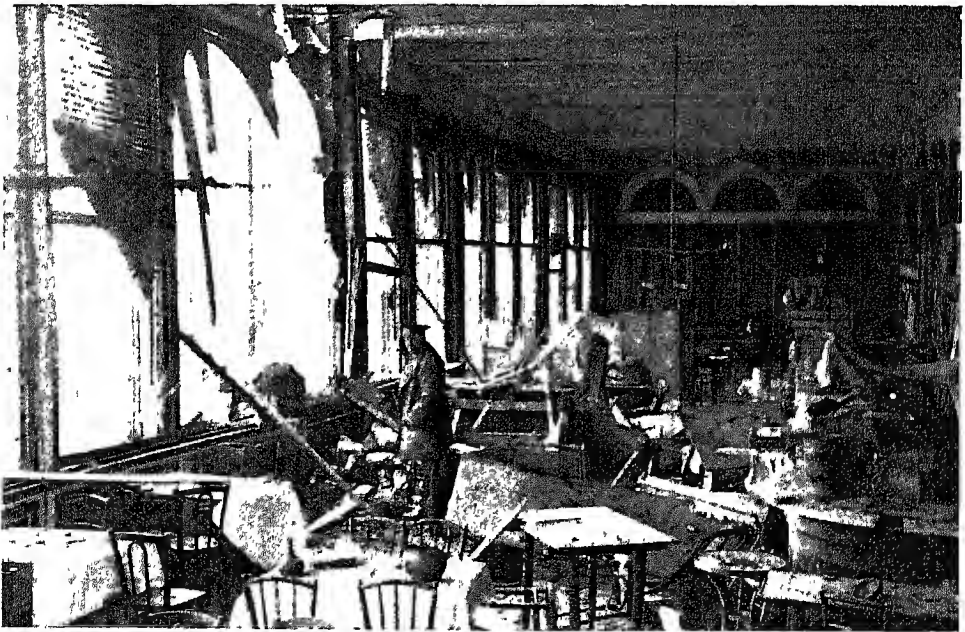
a large area of water. In 1914 it offered quite inadequate accommodation for a fleet which numbered at full strength over 200 vessels. The Grand Fleet was therefore compelled to use Scapa Flow, an immense sheet of water in the Orkneys.

This base had three defects. It was without piers, docks and repair shops. It was nearly twice as far from Heligoland, the advanced base of the German fleet, as Heligoland from the mouth of the Thames. Thus, unless the Grand Fleet started immediately the Germans put to sea, it could not be certain of intercepting them on their return from raids. Scapa Flow was further entirely unprotected against submarines or even destroyers. It had five entrances, all of which had to be guarded. Months passed before it could be made tolerably safe, and there was a period when, after reports (which proved subsequently to be incorrect) that submarines had been seen in the Flow, the Grand Fleet was moved to the west coast of Scotland and to Lough Swilly, to give its officers and men some rest from the excessive nerve strain to which they were exposed in an open harbour.

The failure of the German submarines to attack the Grand Fleet in this period, before Scapa was rendered secure, still remains something of an enigma. But the Flow was remote from observation by spies and its name was never mentioned in British reports or newspapers. The extreme secrecy enforced by the strict censorship on all news probably helped no little to keep the Germans in uncertainty as to where the British main fleet really was. Reconnaissances of the Flow by two U-boats happened to be made when the Grand Fleet was not inside, and doubtless helped to mislead the Germans. Moreover, about the rocks or 'skerries' at the southern entrances to the Flow, which are the most important ones, swirled unusually strong tides and currents. These are the well-known 'roosts' in the Pentland Firth which run not in one well defined stream, but vary constantly and attain speeds of 8 or 9 knots. Such waters were peculiarly treacherous for submarines. Only one determined attempt on the ships in the Flow was essayed by a U-boat, and

that was in 1918 by a boat manned with German officers. She made her way through the outer defences, which by that date had been made very formidable, but was caught and blown up on the inner line of mines.

In November, 1914, German battle cruisers appeared off the Norfolk coast and fired a few shells at Lowestoft and Yarmouth. In December of that year they loomed up out of the early morning mist and bombarded Hartlepool, Scarborough and Whitby, shelling the residential quarters of the two former places and causing great damage and heavy loss of life. They killed 106 non-combatants and wounded 510. Though squadrons of the British Grand Fleet were moving to cut them off, these battle cruisers were not brought to action and destroyed. Indeed, it was lucky for the British that a general engagement did not result—the Germans had almost their entire strength and the British only about half their fleet. Not only were many of the Grand Fleet's battleships unavailable, but it was also weakened by the



IN THE WAKE OF A GERMAN SHELL AT SCARBOROUGH

The bombardment of the English east coast by German battle cruisers in December, 1914, caused considerable damage and mortality in Hartlepool, Scarborough and Whitby. The Grand Hotel, a conspicuous building on the sea front at Scarborough, formed an easy target for the raiders, and its restaurant and buffet, shown in the photograph, were wrecked by German shells. Damage such as this was the sum of the injury inflicted by the German surface fleets on the British Isles

Photo, London News Agency



VICE-ADMIRAL VON HIPPER

Von Hipper, a rear-admiral at the outbreak of the war, carried out the German naval raid on the English east coast in December, 1914. He commanded the cruiser squadron at the Dogger Bank, 1915, and at Jutland, 1916.

Photo, E.N.A.

absence of the two battle cruisers that had been sent off to fight Spec, and a third was guarding the convoys with Canadian troops. This was one of the occasions when the British were misled by their reading of the German wireless signals. The messages which they had intercepted did not reveal that the main force of the German fleet would be at sea.

Some weeks later a fresh raid was attempted by the Germans, but this time without the main strength of the High Sea Fleet following in support of the battle cruisers. On January 24, 1915, the German admiral, Hipper, with three battle cruisers and a ship of weaker type, the *Blücher*, reached the Dogger Bank only to discover Beatty bearing down on him with five British battle cruisers. The British had detected signs of the German movement and had taken precautions against it. The German ships turned and ran, the *Blücher* immediately dropping to the rear. Beatty came up in pursuit and a long-range action followed.

Quite early in the engagement it looked as though a decisive victory was to be won.

An immense column of flame and smoke was seen to spurt up from Hipper's flagship, the *Seydlitz*, just after a hit had been made on her by Beatty's flagship, the *Lion*. A shell pierced the armour of the aftermost turret, setting on fire a large quantity of ammunition inside. The unfortunate men in the turret who were cut off, in an attempt to escape from the fire, must have opened a door in a bulkhead leading to a compartment under a second turret, as in this second turret also the ammunition blazed up. The two turrets and the compartments near them were converted into one great furnace of roaring flame in which 159 of the 165 men in that part of the ship were burnt to death. By Hipper's staff it was thought that the ship was doomed and must blow up, but though six tons of explosive had taken fire and burnt, the magazines were flooded and the *Seydlitz* was saved. She was however, in a precarious state, with a great deal of water in her and little ammunition available for her other turrets.

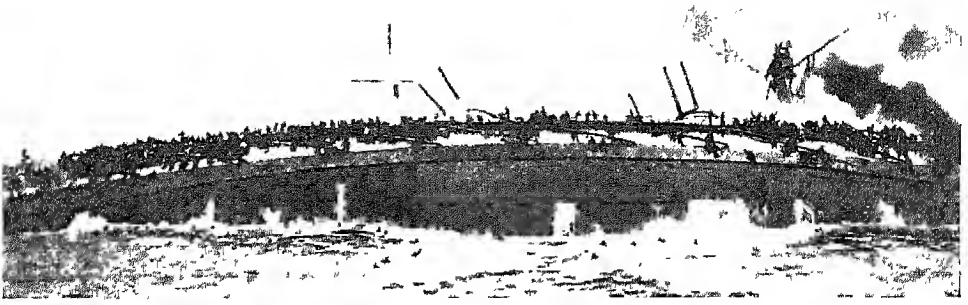
By a curious accident the British flagship, the *Lion*, was also badly hit about this



ADMIRAL BEATTY

The traditional fighting spirit of the British navy was well upheld by Admiral Beatty (born 1871) in the battles of the Dogger Bank and Jutland. In 1919 he was given an earldom and appointed first sea lord.

Photo, Russell



HOW THE GERMAN CRUISER BLUECHER WENT DOWN

This striking photograph, taken from a British cruiser at the battle of the Dogger Bank, shows the German armoured cruiser Blücher turning turtle after her stout resistance to the attacks of the British ships. Abandoned by her sister ships when she caught fire, the Blücher was finally sunk by two torpedoes discharged by the British light cruiser Aurora. Her crew is here seen scrambling down the almost horizontal hull, only 123 out of 885 being rescued.

Photo, 'The Daily Mail'

time, and, like the Seydlitz, was in extreme danger. A shell started a fire in her fore-turret magazine, and those on board her thought the end was at hand until the welcome message came up from the magazine party, working in the stifling heat and smoke far below, that the magazine was flooded and

Engagement of the fire was out. She the Dogger Bank received another bad hit, however, which gradually reduced her speed, and she fell astern, with the result that she could no longer take part in the action. Meanwhile the Blücher, like the Seydlitz, suffered terribly from a fierce ammunition fire, caused by a British shell. Sheets of flame rose from two of her turrets and she dropped far astern of the other German ships, which abandoned her to her fate. She was destroyed with torpedoes after a gallant resistance. The main battle with Hipper's three battle cruisers was broken off when Beatty fell astern and could no longer direct the attack.

Only four hits were made by the British on the German ships which escaped, though the hits on the Blücher were numerous. The German loss in killed and wounded was over a thousand, mostly in the Blücher; the British was only 43. The Germans received a severe blow, but the battle taught them a great deal, as after it they took special and additional precautions against ammunition fires, which, as Jutland was afterwards to show only too clearly, are the surface ship's chief danger in action.

Vast and important as were the services which sea power rendered to the Allies in the war, its strict limitations remained as in the past. Ships were able to accomplish little against forts on land. Repeated bombardments of the Belgian coast by British vessels produced no real impression on the German batteries there, except at the opening of the first battle of Ypres, when the fire of the British naval guns secured most important results by preventing the Germans from breaking through the Belgian front.

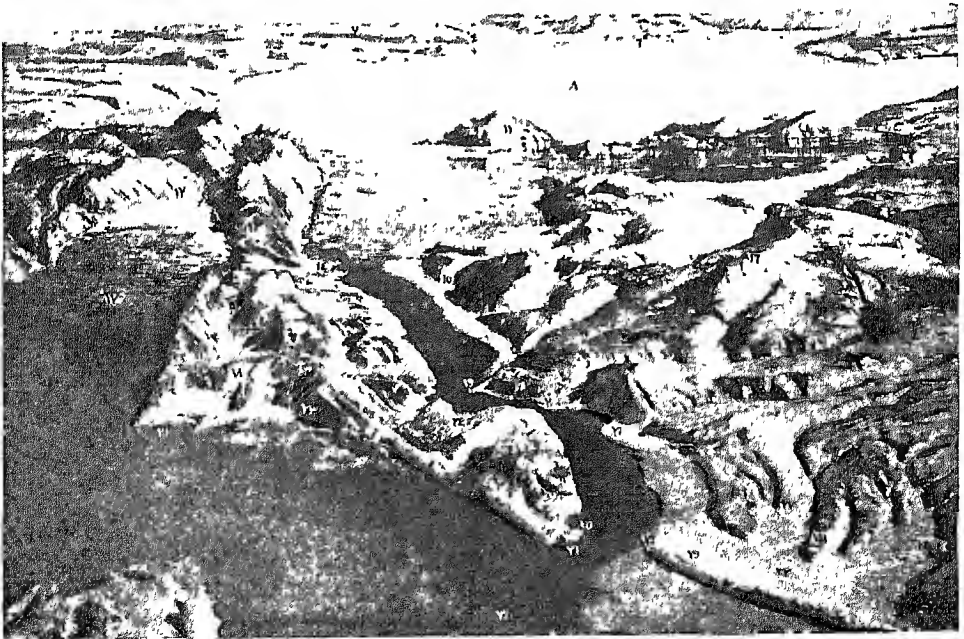
At the Dardanelles, the attempt to force a passage past the Turkish forts on that long and narrow waterway completely failed. The fleet engaged was composed of old British and French battleships to which two modern Dreadnoughts were attached. It had to deal with mines in the straits as well as heavy guns well mounted ashore. In the main attack of March 18, 1915, two British battleships and one French battleship were sunk, and each of the Allies had another important ship badly damaged. If a joint attack by a strong military force and a powerful fleet had been delivered, the Dardanelles would almost certainly have been penetrated and opened temporarily; but unless the Turkish army, which was mobilised and near at hand, had been thoroughly beaten, the result must have been far less decisive than was supposed at the time by the Allied governments.

On the Suez Canal a force of old ships was not able to prevent the Turks from crossing into Egypt, though they were

finally repulsed by the greatly superior number of British troops holding the canal. Nor were the British surface ships ever able to penetrate into the Baltic or weaken the German grip on that sea. The pressure which the Allied navies exerted upon Germany was in turn exerted by the German navy upon Russia, where it was beyond doubt one of the causes of the Russian catastrophe.

It was the British desire to give Russia support at sea that led to the battle of Jutland. In the morning of May 30, 1916, the British Admiralty intercepted wireless messages of German origin which told it that some considerable part of the High Sea Fleet was on the move in the North Sea. The Admiralty hoped to force the Germans to fight, to defeat them, and thus to take pressure off the Russians. From noon onwards orders and instructions were sent off to the various British squadrons and commands. When night fell, the Grand Fleet began to steam out from its bases at Scapa Flow, Cromarty and Rosyth towards the coast of Jutland.

By the early afternoon of May 31, invisible to each other, the two large fleets, the British of 150 vessels and the German of 99 vessels, were rapidly nearing one another. In each fleet a force of battle cruisers with light cruisers and destroyers was some fifty miles in advance of the main body and would be the first to engage. The Germans suspected or indeed knew that Beatty with his battle cruisers was at sea. But neither in the reports of their submarines nor in such few wireless signals as they had intercepted was there anything to indicate that Jellicoe with the British battle fleet was also steaming in great strength to Horns Reef, a shoal and lightship off the Danish coast. Nor was there anything to show that with Beatty and his six battle-cruisers were four formidable new battle-ships of the Barham class, each mounting eight 15-inch guns and steaming 25 knots—the most powerful vessels in service in any fleet at that time. The British knew that Hipper with the German battle cruisers was at sea. But they in their turn did



PANORAMIC PLAN OF THE DARDANELLES AS DRAWN BY A GERMAN

Arabic numerals point the various places in the key to this pictorial map of the Dardanelles, showing the dangerous Narrows and the sea of Marmora. It was drawn for the guidance of the Turkish government by a German artist, Zeno Diemer, and lithographed by Franz M. Würbel. This reproduction is made from a copy of the map obtained from the Turkish war office after the war. It can be realized that defeat of the Turkish army would have been essential after any naval success.



ADMIRAL JELlicoe

John Rushworth Jellicoe was born at Southampton in 1859, and entered the Navy in 1872. He was appointed commander-in-chief of the Grand Fleet on the outbreak of the Great War. In 1925 he was created an earl.

Photo, Spanght, Ltd

not know that Scheer was also out with the German battle fleet. The German wireless signals which had been intercepted suggested that it was still in harbour at Wilhelmshaven. Thus each side was about to experience a surprise.

The Germans sent up five naval Zeppelins to scout, but these airships did not go far or render much service. They reported the weather hazy and the visibility nowhere more than six sea miles or 12,000 yards. The British fleet moved in silence without making wireless signals, which were only to be used if the enemy was sighted, and various British ships were told off to listen on the German wavelengths. The Germans were not so careful; a German wireless signal was taken in just before noon by the British. Its faintness showed that the German force was still at some distance.

At 2 p.m. Beatty's advanced cruisers, far ahead of the British battle fleet, reached the point where contact with the German advance guard was expected to be made. The sea seemed empty, however. There was no sign of any adversary, and only a

harmless Danish steamer, the U-Fjord, could be discerned some distance away. The British were preparing to turn north and withdraw, assuming that the Germans had not maintained their movement, when at 2.15 the British light cruiser Galatea saw something suspicious. A long grey vessel with two funnels closed the U-Fjord, apparently to examine her. The suspicious vessel was quickly identified as the large German destroyer, B 109, and at 2.20 the Galatea observed other warships not belonging to the British navy, and made the momentous signal, 'Enemy in sight.' About the same time German wireless signals came in strongly on the British instruments.

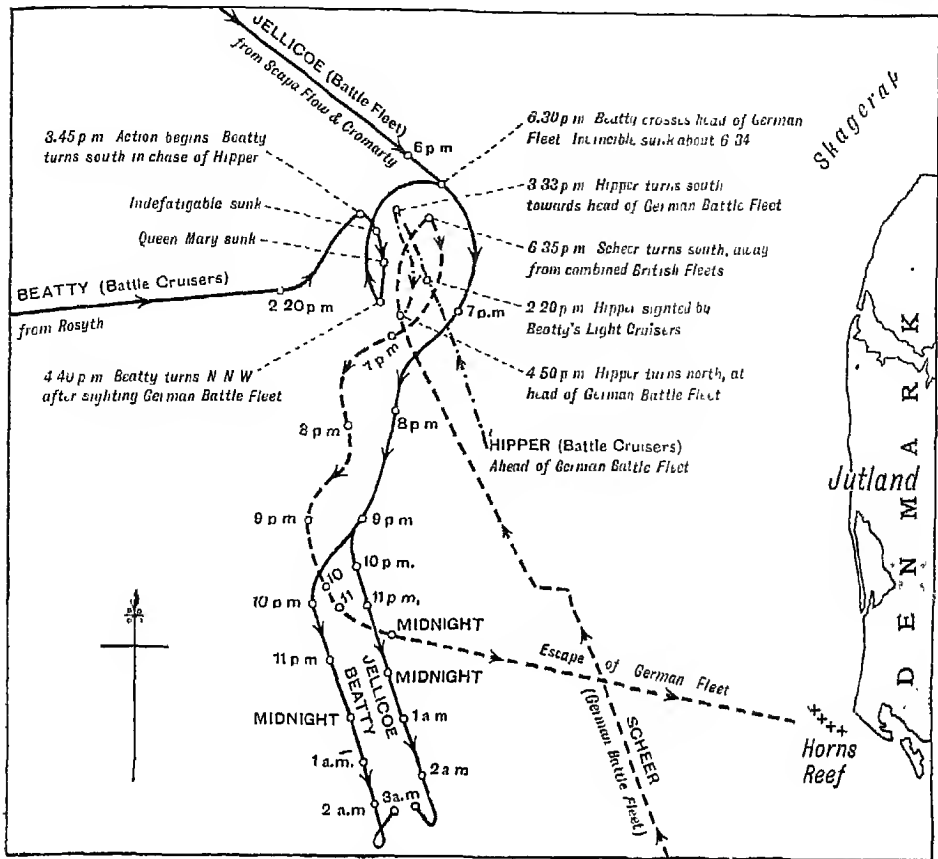
The British were quicker by several minutes than the Germans in giving the alarm. Each battle cruiser force, when the signals of contact were received, turned towards the hostile ships and raised its speed to support its light vessels. Already the action had opened; the Galatea was firing at the German light cruiser Elbing. In the other ships the men were at action stations.



GERMAN COMMANDER AT JUTLAND

When the Great War broke out Reinhold von Scheer commanded the battle squadron at Kiel until appointed commander-in-chief of the High Sea Fleet in 1915. His conduct of the Jutland battle was highly praised in Germany.

Photo, Imperial War Museum



MOVEMENTS OF THE OPPOSED FLEETS DURING THE BATTLE OF JUTLAND

While the over-all scale of this plan is roughly accurate—it can be gauged by reference to the Danish coast in the map in page 4841—the internal scale cannot be guaranteed; in particular, for clarity's sake, the complicated early movements (north) have been slightly expanded at the expense of the rest. Broadly, the course of the battle was this: Hipper drew Beatty's advanced cruiser squadron in pursuit on to the advancing German High Sea Fleet, Beatty, turning, drew the two in pursuit on to the British battle fleet; the Germans turned in flight, and escaped under cover of darkness.

Over the North Sea at the point where these two fleets were about to engage hung patches of mist and haze, especially towards the east—the quarter from which the Germans were approaching. The westward sky in the quarter from which Beatty was moving was clear and free from mist. Beatty so directed his line of movement as to place his ships between the German battle cruisers and their bases, and thus to compel them to fight. At 3 p.m. Commander Paschen, the fire-control officer in the German flagship Lützow, says that he could discern with certainty the massive outlines of Beatty's six battle cruisers and far astern of them the shapes of the four fast British battle-

ships of the Fifth Battle Squadron. If he really saw all this his admiral did not report it. On the contrary, Hipper signalled to Scheer twice over that the British force consisted of only six large ships. As for the British, they could only just make out in the mist the dim forms of five German battle cruisers and were not quite certain what these ships were or whether there were any new vessels among them, owing to the poor light to the east.

When the Germans discovered the strength of Beatty's force they turned and steamed as fast as they could towards their own battle fleet, which was far behind them to the south-east. The British increased speed and steadily gained

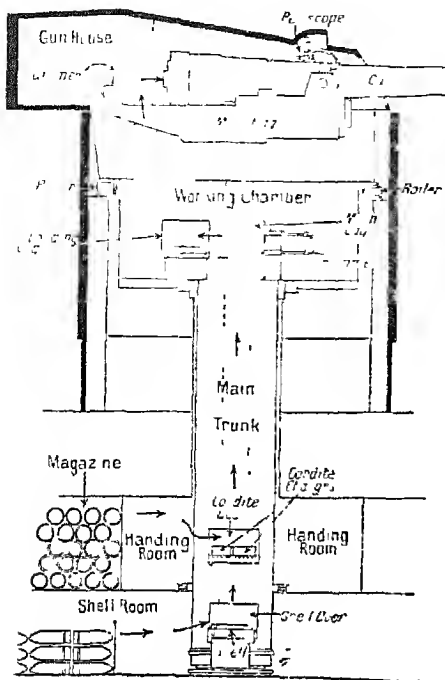


DIAGRAM OF A BRITISH TURRET

The relative positions of the various compartments of a turret are shown in this diagram. Unless the magazine doors were closed the flash from a shell exploding in the turret risked igniting the ammunition down the main trunk. Ammunition fires are the chief danger in action.

From: Lawell & Horner, 'Fighting Machines' Co.

on them. At 3.48 the battle between the big ships began. The salvos beat across the sea and fountains of water rose near the ships, as the fire control officers on both sides felt for their targets.

In battle at sea everything depends on quick hitting, and quick hitting depends on excellent discipline, thorough training, ample target practice, good range finders and instruments, and good conditions of shooting. There was nothing to choose between the men in the two fleets in the matter of discipline and training, but—though this point is still a matter of controversy—the Germans probably had the better range finders. They were also favoured by the light and the mist in a singular degree. This was an entirely new condition in naval war, arising from the enormous increase in the range of naval artillery—that one side should be invisible to the other which it could see quite plainly. Only at rare intervals

could the British make out the indistinct shapes of the German battle cruisers. For most of the time they had nothing to shoot at and nothing from which to take the range except the flickers of scarlet flame which ran along the eastern horizon and blazed out of the mist when the Germans fired salvos of four or five heavy shells, discharged simultaneously. The Germans at the outset could see the British clearly, outlined against the bright western sky.

So it was that the fire of the British was at first slow and uncertain—that, in the words of a German officer, they 'took endless time in finding the target'—while the German guns rapidly picked up their targets and began to hit. Nevertheless the first really dangerous hit went to the British. It was made by the Queen Mary on the unlucky Seydlitz; a shell pierced the steel armour of one of the turrets and set fire to the ammunition in the turret and below it. There was a great rush of flame which killed every soul in the turret and the neighbouring compartments, except half a dozen men who leaped out through the escapes to the deck. But the ship did not blow up; the doors protecting the magazines closed in time and the magazines were flooded.

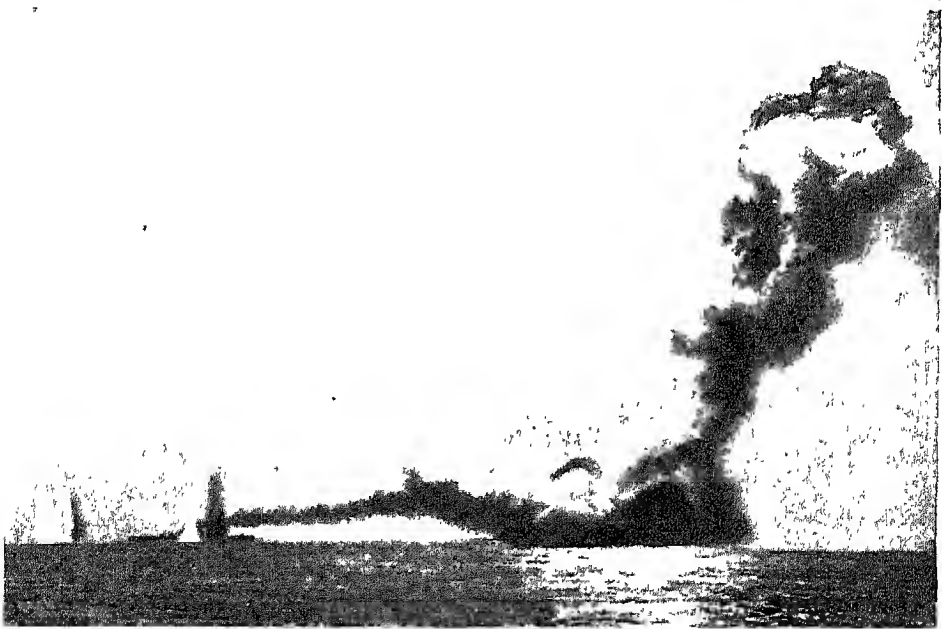
The battle was not a quarter of an hour old when the Lion, Beatty's flagship, received from the Lützow a hit which was almost fatal. A shell struck the roof of her centre turret, penetrated it, burst inside the turret, blew half the roof off so that it flew high into the air and fell back on the deck with a terrible clang, and killed or grievously wounded all in the turret. Major F. J. W. Harvey was in command of the Marines, who were working the turret. Mortally wounded, he ordered the magazine below to be closed and flooded and sent the only man who could walk, a sergeant of Marines, blackened and bleeding with torn uniform, to report to the captain what had happened. Smoke rose from the turret as fire smouldered there; suddenly the flames blazed up and reached a quantity of ammunition in the hoists and chambers below. A pillar of fire shot up from the

Lion to a height well above the tops of her masts, but the flash did not reach the magazine and the ship survived through the faithfulness of the officers and men who perished and the strange accident that the destruction of most of the turret roof had provided a ready escape for the rush of gas and flame.

Just after the Lion had received this hit, the British battle cruiser, *Indefatigable*, last in the line, vanished in an upheaval of smoke and flame. She was first hit by a salvo of four 11-inch shells from the *Von der Tann*, which sent up clouds of smoke and splinters near her mainmast and after turret; her steering seemed to be affected and she sheered out of the line. She was sinking by the stern when an explosion was observed in her. Another salvo struck her and there rose from her a brilliant crimson sheet of flame in which dark objects could be discerned flying through the air. Then the whole hull was shrouded in dense black smoke, and she vanished, taking with her all but two of her crew of 1,019 officers and men.

The flash of the exploding German shells had evidently passed down the ammunition hoists of the after turret to the magazines below. Attention had been drawn to the danger of such a mishap after the battle of the Dogger Bank, but no action had been taken to deal with it. The peril was the greater because the British ammunition was extraordinarily inflammable.

Beatty did not relax his hold on the Germans because of the loss of this precious ship. He resolutely maintained the fight, nor did he hesitate when a second catastrophe befell his force. The *Queen Mary* was hit by a whole series of salvos from the *Derfflinger* and *Seydlitz*, which both were firing at her, when she 'seemed to open out like a puff ball,' and vanished in the same terrifying fashion as the *Indefatigable*, with 1,266 officers and men. The evidence of survivors showed that her crew nobly maintained their discipline to the very last when the vessel was manifestly doomed. At most of the battle stations the men died unflinching



H.M.S. QUEEN MARY BLOWING UP IN THE BATTLE OF JUTLAND

Twenty minutes after the *Indefatigable* had blown up a salvo hit the *Queen Mary*. Several moments later a terrific yellow flame burst out, and a heavy and very dense mass of black smoke completely enveloped the ship. The roofs of her turrets were blown 100 feet high, and the whole ship collapsed inwards. This photograph, taken from H.M.S. *Lydiard*, shows the immense size of the smoke-cloud of the explosion, its base being almost exactly the full length of the *Queen Mary*.

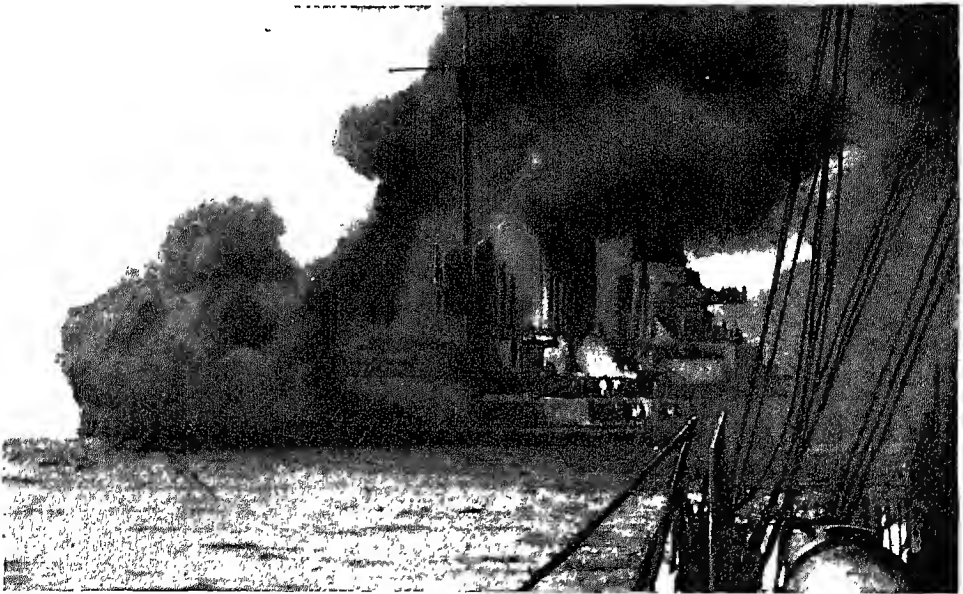
From Fawcett & Hooper 'The Fighting at Jutland,' Macmillan & Co., Ltd.

because no order to retreat could be given before death was upon them.

Beatty still steadfastly pressed the German battle cruisers and was now receiving support from the four powerful battleships of the Fifth Battle Squadron which were heavily engaged. They startled the Germans by the immense range at which they opened fire, and if they had only been favoured by a good light, and had had shells as powerful as the Germans, they might well have wiped out Hipper's ships with their huge 15-inch guns. But at this moment the British light cruiser Southampton, scouting ahead of Beatty, signalled that a new antagonist had appeared. The German battle fleet was coming up from the south-east. It was supposed to be lying at Wilhelmshaven and this was the first time in the whole war that it had been sighted by a British surface ship at sea. Beatty's position had become critical. He had to turn north in order to fall back on the British battle fleet, just as the grey outlines of the German battleships came into view far away in the mist. They followed him and opened fire on him.

It must have seemed to the Germans that he was at their mercy. But at this juncture the light began to improve for him and to deteriorate for the Germans. The German gun crews were tiring; in several of the battle cruisers they had fired three salvoes a minute from their heavy guns for considerable periods. The British were hitting with effect. The Seydlitz was struck eight times and was badly damaged, and she was also hit by a torpedo, which, however, failed to do serious damage. Through hits or breakdowns in her turrets the Von der Tann had all her heavy guns out of action.

Owing to the distance which parted Jellicoe from Beatty and the practical difficulty of determining the exact position of two sets of ships at sea in battle, where the nerve strain is so great and the instruments are exposed to shock and interference from the enemy's fire, the position of the German ships was not ascertained and reported by Beatty's ships with complete accuracy. Jellicoe thought that Scheer would be farther off than he actually was, and thus did not expect an immediate collision. Meantime,



THE GERMAN BATTLE CRUISER SEYDLITZ ON FIRE AT JUTLAND

The Seydlitz, dimly visible among smoke and flames, was hit many times by the British in the historic sea fight at Jutland. Once a torpedo struck her, but, gravely damaged though she was, she yet survived the ordeal to be numbered among those German vessels surrendered to the British on November 18, 1918. She was sunk at Scapa Flow by her own crew on June 21, 1919.

From Fawcett & Hooper, 'The Fighting at Jutland,' Macmillan & Co., Ltd.

an advance detachment of Jellicoe's fleet, in the shape of three battle cruisers with light cruisers and destroyers under Hood, was steaming fast towards Beatty from the north or north-east, while Jellicoe, with his mass of twenty-four Dreadnoughts, screened by light cruisers and destroyers, came down from the north-west. The culminating moment was at hand when the main British fleet, appearing quite unexpectedly, would engage. As that moment approached the smoke and mist veiling the surface of the North Sea thickened.

Moving in advance of Jellicoe's main force, Arbuthnot, with a squadron of armoured cruisers, struck the advanced German cruisers and attacked them fiercely, almost at the same moment as Hood opened fire upon them. The effect of this double onslaught was to hide from the Germans all indication of Jellicoe's approach. They mistook Hood's battle cruisers

for a detachment of British battleships, and turned their entire attention to them. Arbuthnot, in his flagship, the armoured cruiser *Defence*, drove back the German cruisers and destroyers, when suddenly there emerged from the mist and smoke the forms of five German battle cruisers or battleships, which opened an annihilating fire on the *Defence* at the short range of 7,000 to 10,000 yards, and in a couple of minutes destroyed her with 903 officers and men on board, leaving not a single survivor. The enormous power of modern naval artillery was illustrated by this incident, and the helplessness of a vessel of inferior class against capital ships. The *Warrior*, which was with the *Defence*, was badly damaged and only escaped because of the appearance of the powerful battleship *Warspite*, which from a steering breakdown circled towards the German fleet, and intervening between her and it drew off the hostile fire.

At this point of the battle, known as Windy Corner, there was extreme congestion. Jellicoe's ships were coming down and deploying in one long line to the north. Beatty was coming up from the south-west; Hood was approaching from the east; to the south were the light and heavy

ships of the German fleet. Nearly 250 vessels of all kinds and sizes were manoeuvring, and no one could clearly see what was happening or make out the exact position and character of antagonists. The light for the Germans grew worse and worse, and mainly because of this they had not discovered that Jellicoe was upon them. The sun was low behind the British, and its rays dazzled the German gunners so that they could not see their foes, while a heavy fire was beating upon them from invisible assailants. For a moment, indeed, a target was disclosed to them. Hood

in the *Invincible* came into view in a clear patch of water. His ship was at once attacked by two German battle cruisers, *Lützow* and *Derfflinger*, and blew up as the two other battle cruisers had done from the same cause, flames spouting from two of the turrets before the whole hull opened amidships in a final explosion.

In the British battle fleet, which was now actually in contact with the Germans, undiscovered by them, little could be seen—only the dim forms of big German ships and the occasional flicker of the German salvoes. Yet the British fire is known from German statements to have been most effective. Just as the British battleships were hitting severely, notwithstanding the difficulty of the light, German destroyers were observed advancing. It was supposed in the British fleet that they were moving out to deliver a torpedo attack, and the battle fleet turned away to elude their onslaught. In reality, the German destroyers had received orders to rescue the crew of the German light cruiser *Wiesbaden*, which was burning furiously. While approaching the *Wiesbaden* the German destroyers were ordered to attack in strength, but this order was almost immediately countermanded.

The British turn-away at a critical moment may have saved the Germans, the more so as the British battle fleet did not promptly turn back and endeavour to close. The German system of tactics was more supple, otherwise Scheer's ships, which could only fire some 150,000 lb. weight of heavy projectiles in every

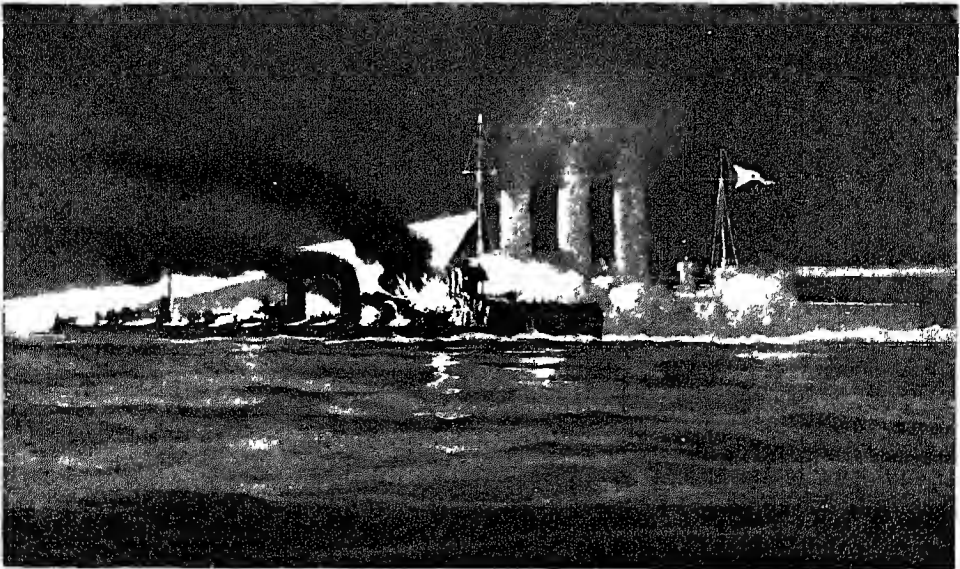
broadside, against 300,000 lb. or more in the British fleet, should have been rapidly shot to pieces. Six of his ships were old and quite unfit for an encounter with Dreadnoughts, and though the others had considerably more and thicker armour than the British ships, they had much weaker gun armaments.

From this point onwards the battle resolved itself into a cautious fencing between two fleets of battle ships in the mist and smoke. Twice the Germans approached the British fleet, trying to pass beyond it—for it was interposed between them and their bases—and to secure their retreat, and twice they were driven back by concentrated fire. They only succeeded in damaging one British battleship, the *Marlborough*, which was hit by a torpedo, and she remained in line until late in the night. Submarines and mines played no part in the battle, and the torpedo had very little material effect on it, though the fear of it strongly influenced the tactics. Owing to grave deficiencies in the British arrangements for night fighting Jellicoe decided not to press the Germans during the hours of

darkness, though his fleet was quite close to them and though during the night the noise and flash of a whole series of furious torpedo actions was observed from several of the British battle ships; and in one great explosion the cranes and outline of a German Dreadnought were plainly lighted up.

The British destroyer flotillas attacked as they came into contact with the Germans, but as they had received no definite orders or information as to the position their onslaughts were disconnected. Made with rare bravery and the utmost determination, they inflicted on the Germans only one serious loss, that of the old battleship *Pommern*, while they suffered severely themselves. But several of the German Dreadnoughts had the narrowest of escapes from British torpedoes.

As that eventful night wore on the German fleet at last managed to get to the east of the British fleet by steaming astern of it, and passed between it and the Danish coast, steering for Horns Reef. It arrived there about daybreak, and was surprised to find no trace of the British. It is still something of a mystery why



NAVAL WAR BY NIGHT AT JUTLAND : THE RAMMING OF THE SPITFIRE

In the night fighting after the battle of Jutland there was great uncertainty as to the character of the German ships encountered. This sketch, based on the reports of British officers, depicts the ramming encounter between the British destroyer *Spitfire*, of the 4th Destroyer Flotilla, and what is now known to have been the German two-funnelled Dreadnought *Nassau*. The latter was mistaken by the British for a German cruiser—hence the three funnels in the sketch. Both vessels survived.

From Fawcett & Hooper, 'The Fighting at Jutland,' Macmillan & Co., Ltd.

Jellicoe did not steam to Horns Reef during the night, because it was a point at the junction of the swept passages through the German mine fields, by one of which Scheer must retreat. If the British had concentrated there, they would almost certainly have sunk the *Derfflinger* and *Seydlitz*, which were grievously damaged and hardly capable of fighting; and they might have secured or sunk other less damaged ships as well. Four of the German battleships, *König*, *Grosser Kurfürst*, *Posen* and *Ostfriesland*, and all the older ships would have found it difficult to escape had there been an energetic pursuit. But in the naval theories which at that time prevailed in the British fleet, insufficient importance was attached to decisive victory at sea.

And so the battle of Jutland was an indecisive engagement in which, for the first time in recent history, the weaker fleet, with only 21

Indecisive Results at Jutland Dreadnoughts against 37, inflicted upon the stronger fleet just twice its own loss in tonnage of ships sunk and in officers and men killed and wounded. Of the German Dreadnoughts only one, the *Lützow*, was sunk, as it was found that she was too much injured to be got back into port, and the Germans torpedoed her.

Neither side had understood beforehand what a naval battle would be like in the mists of the North Sea. The Germans, because they had for many years had a scientific staff, came nearer to the reality in their anticipations. The rapidity with which the largest ships could be destroyed was one of the numerous grim surprises of the engagement. No one can be certain how many German shells hit the three British battle cruisers which blew up, but it does not seem that in any one of them there were more than fifteen heavy hits, and in the *Indefatigable* there may only have been five or ten. Long after the battle and some time after the close of the war the German battleship *Baden*, serving as a target ship, was sunk by the British fleet with astonishing speed, though she had much stronger armour than any vessel that fought at Jutland. Similarly, the new United States battleship

Washington, which was used for a target by the American fleet, went to the bottom after only fourteen hits by 14-inch guns, although she was so designed as to be capable of withstanding eight torpedoes without sinking.

Heavy artillery is then still the dominating factor in naval war; the German opinion after Jutland as expressed by Admirals Tirpitz and Von Trotha was that the big, well armoured ship is necessary to any navy which would command the sea.

The battle of Jutland left the High Sea Fleet still in existence with its 40,000 admirably trained officers and men on whom Germany could draw for the manning of the great submarine fleet that she

The German Submarine Campaigns was actively constructing in 1916. A

first submarine campaign opened in early 1915, when the German Admiralty proclaimed the blockade of the British Isles. But after the destruction of the *Lusitania* with 1,198 of her passengers and crew, including more than a hundred United States citizens, the German government reluctantly promised that its U-boats would not sink liners without warning. Though the promise was not kept, it so hampered the German submarine commanders that they reported satisfactory operations against British commerce with it to be impracticable. The Allies' losses from submarine attacks were none the less considerable, if they did not threaten complete disaster.

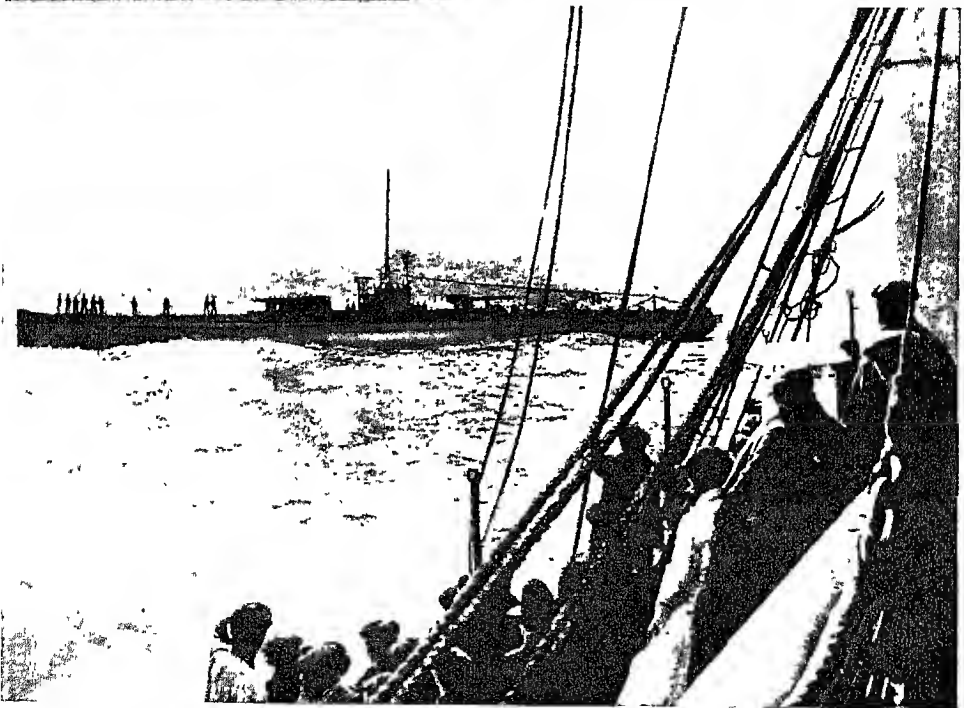
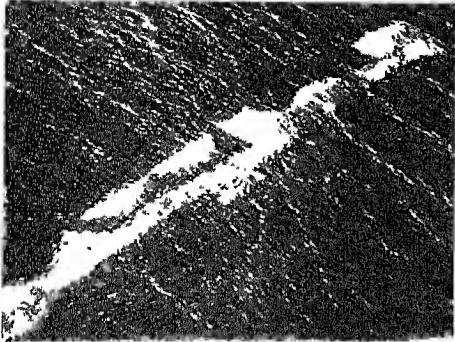
By the end of 1916, however, the German government determined to carry on what it called a ruthless submarine campaign—by which was meant the sinking at sight of every ship found in the war zone. It resolved to flout neutrals and defy the United States. It intended to transfer the war at sea from the surface to the waters below the surface, so that an extraordinary situation would arise in which the two combatants might simultaneously occupy the same sea, and in which the invisibility of the submarine would be matched against the superior force of the surface ship. The reason for this decision was that the German armies on land had no longer any hope of gaining a decisive victory, while

the German naval authorities gave assurances and produced calculations proving that England must infallibly collapse not later than July, 1917, if a ruthless submarine war was waged and if German U-boat commanders were released from all restrictions.

After protracted discussions the emperor William II gave way; he seems to have feared and hesitated up to the last. What Lord Curzon called 'the supreme

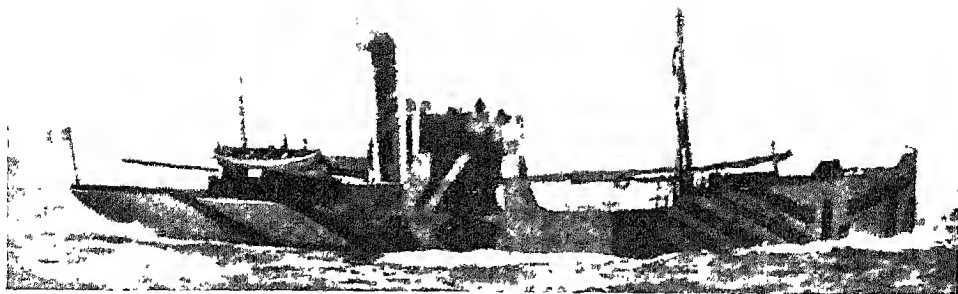
and terrible climax of the war' was at hand when on January 31, 1917, the final U-boat campaign began. Had the Germans waited only six weeks there would have been no need for them to resort to the methods that sullied the reputation of their navy and forced President Wilson into action, much against his will. The outbreak of the Russian revolution, quickly followed as it was by the utter collapse of the Russian army and navy, would have freed large German military forces for the western front and have entirely transformed the military problem.

The German government had no fear whatever of the United States. As its naval authorities were so positive that England would collapse in six months, it seemed to follow that by no conceivable possibility could American troops in any number be raised and transported to Europe. In January, 1917, the American army was insignificant, and though the American navy was strong it was not at all



GERMAN SUBMARINE PHOTOGRAPHED FROM THE STEAMER IT AFTERWARDS SANK
The methods employed by German submarines in attacking Allied ships were two. Against warships a torpedo was discharged which betrayed its presence by a track through the water, such as is shown in the upper illustration taken from the air. If the object of attack were an unarmed merchantman, the U-boat would rise to the surface, as in the lower photograph, and shell its victim—a procedure less costly than the former method.

Photo, Imperial War Museum



A TRIUMPH OF DISGUISE : ONE OF BRITAIN'S MYSTERY SHIPS

Among the defensive measures introduced by the British naval authorities in face of the intensive German submarine campaign was the employment of mystery or Q-boats. These vessels, masquerading as merchantmen, carried concealed guns, and were equipped with lookout posts and wireless aerials skilfully hidden. Members of their crews were trained to simulate panic if a submarine appeared. H.M.S. Gunner, Q 31, seen in the photograph, sank two submarines during the war.

Photo Abrahams & Sons, DeLampar

prepared for a struggle with submarine foes. If the British merchant marine were mercilessly destroyed by the U-boats, it would not be able to maintain the steady flow of supplies necessary for the successful resistance of Britain and France, and it would much less be able to spare any vessels to bring over American troops. Therefore, defeat of Germany now depended on Britain and on Britain's navy and merchant marine alone. If either failed disaster was certain.

The total available force of U-boats when this great onslaught from beneath the surface began is now known to have been no more than 111; and of these fewer than one-half were at any given moment at sea. The others were refitting or resting their crews. But even so the total of merchant shipping sunk or badly damaged approached a million tons a month, and there was no visible means of stopping these frightful ravages. The United States when it entered the war did not immediately give all the naval aid that it could have provided. President Wilson permitted the British navy to struggle on, ill supported, and American officers dispatched to London were instructed by their authorities to treat the British with suspicion, and not to allow the wool to be pulled over their eyes. France and Italy had their hands full of the war on land, and, though they did all that was in their power, they had to leave the main burden

at sea to be borne by the British people. If all the American small craft that were available had been promptly dispatched to Europe, effective protection could have been given to Allied shipping and some millions of tons of vessels would have been preserved from destruction. There would then have been nothing to prevent the transport of large American forces to Europe in the summer and winter of 1917; and there is every reason to think that the Germans would have abandoned the war and made peace before the opening of 1918.

If the U-boat onslaught was defeated, it was defeated by the skilful measures which the British navy took and by the patience and determination of the British nation. As the weeks passed the sinkings of British ships did not increase but gradually fell when new methods and greater energy were directed by the British navy to the defeat of the U-boats. Merchantmen no longer sailed isolated, but were dispatched in large convoys under the escort of a few warships or armed trawlers. This had an immediate effect on the U-boat depredations. The British merchant seamen themselves rose superior to all trials and dangers. They confronted death day after day, firm and unshaken, though by some of the U-boats the crews of sunk ships were treated with extreme ferocity.

Defeat of the
U-Boat Menace

All Allied merchantmen were by degrees supplied with armaments; the channels which the U-boats used when putting to sea were persistently mined, and the mines took steady and increasing toll of the U-boats. And thus week in and week out the necessary supplies were carried mainly by British ships to the various fronts. British reinforcements were brought

across the ocean; and the utter collapse which the German losses of Submarines German Admiralty so confidently anticipated did not come. The U-boat losses became so heavy that, though new boats were rapidly constructed, the total number no longer rose. At no time did it exceed 140 effective submarines, and the number actually cruising never exceeded 61. None the less this comparatively small force of underwater craft shook the whole system of the Allies to its foundations. But from August or September, 1917, it grew clearer and clearer to the Allies that the U-boat attack had been defeated, and that, even if the number of the boats were increased, there was no longer any prospect of their gaining a decisive victory.

Yet there were weeks when the balance of fate seemed to oscillate—weeks of almost unimaginable anxiety. There was one black day in April, 1917, when

the American admiral, Sims, who was co-operating with the Allies, telegraphed: 'Allies do not now command the sea. Transport of troops and supplies strained to the uttermost and the maintenance of the armies in the field is threatened.' Everywhere at sea the communications of the Allies which passed on the surface of the water were attacked by invisible enemies who vanished into the depths when surface warships appeared. Everywhere on land the German communications were safe and inviolate, maintained by railways at which the Allies had no effective means of striking. Moreover, the mere existence of large sea-going submarines clogged the operations of the Allies and compelled their ships to adopt devious routes and to zig-zag when steaming on a course, which meant that the length of voyages was seriously increased at a time when every ton of shipping was urgently needed and all margin on which to draw had disappeared.

The severe restrictions on food consumption imposed in Great Britain and the progress achieved in combating the U-boats made it possible to do in 1918 that which the German staff had dismissed as being quite out of the question—to move American troops by the hundred thousand to Europe when, after the Bolshevik



AN AMERICAN CONVOY BOUND FOR ENGLAND

America's entry into the Great War was attended by the problem of arranging transport for her thousands of troops to the fighting areas. Although a considerable portion of the Atlantic Ocean was open to German submarine attack, the troop-carrying ships were brought through with an extremely low rate of casualties by the system of convoy in which the ships were escorted by destroyers or cruisers and by one or more armed merchantmen. The photograph was taken in May, 1918.

Photo, Imperial War Museum

rulers of Russia had concluded peace with Germany, the German army began its terrific offensive in France. The military value of the new American formations at that date was small; the moral value of their appearance in Europe was immense. Of the American troops sent to Europe during the whole war, 51 per cent. were carried in British and 46 per cent. in United States vessels, the rest being conveyed by Italian and French shipping. But in the supreme crisis between March, 1918, and the armistice British vessels carried 55 per cent. and American vessels only 41.

It was a stupendous achievement on the part of the British merchant service to provide the large necessary tonnage. But without the protection which the vigilance of the British surface warships afforded, concentrated in the North Sea and paralysing the German surface ships, these vast

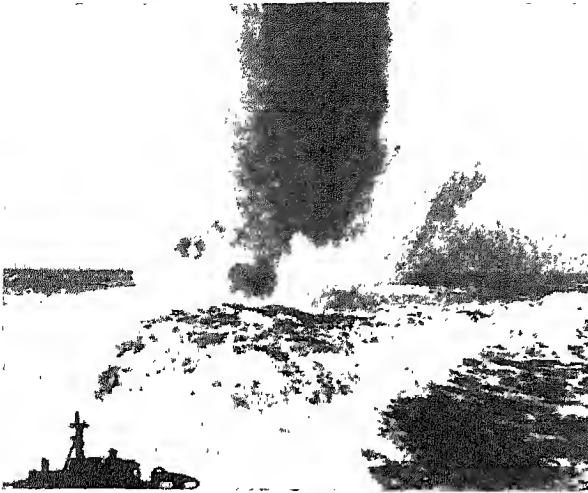
American movements could never have been executed. The American navy towards the close of the war aided by sending a division of battleships to Scapa. Between April and August, 1918, 1,200,000 American soldiers were transported to France, and by September of that year an average of over 300,000 men a month had been attained. Nothing like this had ever been seen in previous history or indeed thought possible.

The Allies were puzzled by the complete failure of the Germans to attack the transports. The American troops were moved by sea over waters infested by the submarines with the sacrifice of only three ships sunk and with negligible loss of life. The fact was that all but the boldest U-boat commanders hesitated to face the inevitable risks of attacking vessels which were under the convoy of powerful surface ships. The 'ghostly finger,' as Admiral Sims called the plain white streak which a torpedo on its run leaves upon the surface, pointed to the submarine that had fired the torpedo, and brought on her the terrible visitation of depth charges. Dropped near the U-boat they might sink her, and even where they failed to do this they often so jarred the mechanism of the boat as to render it inadvisable for her to continue on her cruise.

Moreover, the German staff argued that the destruction of merchant shipping which was engaged in bringing supplies would be every whit as effective in defeating the Allies as the sinking of transports with troops. In this calculation they made one grave mistake. Little was heard of the destruction of supply ships, with the stringent censorship which the Allies enforced on news. A great deal would have been heard if transport after transport had been sunk, for such disasters could never have been concealed.

The submarine campaign was watched with growing restlessness and fear by Germany's allies. The emperor Charles of Austria, Germany's View the last Hapsburg sovereign and perhaps the noblest of his house, had been opposed to it from the first and only allowed himself to be reluctantly overborne when he was assured from Berlin that its success was certain. As the evidence of its failure accumulated, he openly despaired of the German cause and did his best to end the war. But not until August, 1918, did the German government permit any disclosure of the truth in the German press. Then at last a naval officer, Captain Kühlwetter, was put up to confess: 'We have been deceived regarding the enemy's tenacity. We never expected that Great Britain and her allies would be so averse from peace after eighteen months of ruthless submarine war.'

Though the loss of life in submarines was not heavy, submarine work was exacting and exhausting. It involved for the beginner the endurance of something resembling slow suffocation. The space in a submarine—even in the large British submarines of the K class, built for work with the fleet and almost as fast on the surface as torpedo boats—was exceedingly limited. The smells and stuffiness are not to be imagined by those who have not experienced them. The motion of the boats in heavy seas, especially in shallow water, was difficult for even seasoned men to endure without sickness. The vessel 'pumped,' or moved like the piston of a pump up and down. At intervals she was compelled to come to the surface, as only on the surface could the motors be worked



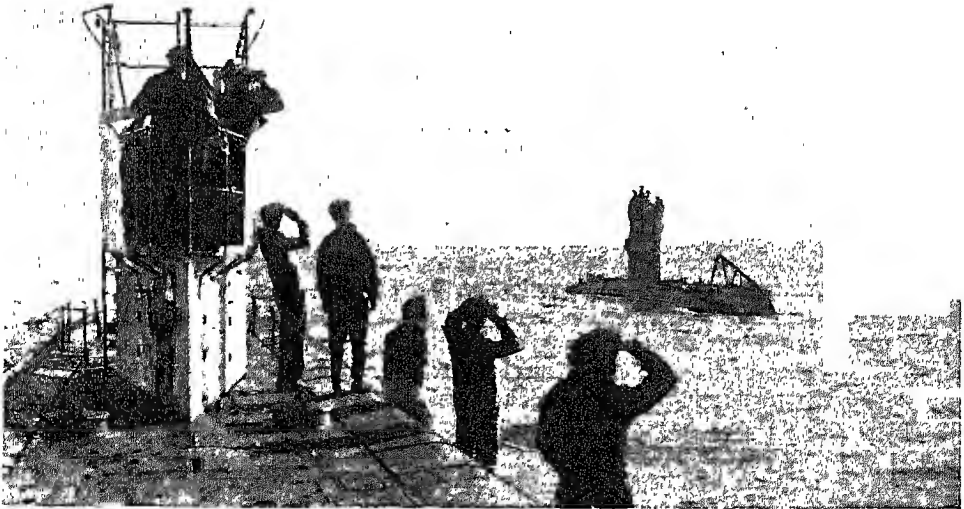
EXPLOSION OF A DEPTH CHARGE

Prominent among the weapons with which destroyers fought the U-boat menace was the depth charge. Consisting of a thin-walled cylindrical container, with firing mechanism in the central tube, it detonated a large charge of explosive below the water, being effective within a radius of 75 yards.

Photo, Imperial War Museum

which charged her storage batteries for running under water. She could remain under water for periods as long as seventy-two hours, and in emergency could go to a depth of 200 feet without disaster.

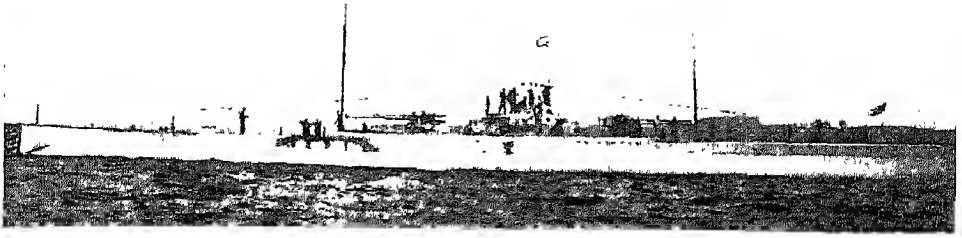
most dangerous antagonists they had to face. The type of vessel most used in fighting the U-boat was, however, the destroyer, which carried a powerful gun armament and a good supply of depth charges.



GERMAN SUBMARINES IN THE MEDITERRANEAN

shed hopes of victory on land led Germany, early in 1917, to concentrate upon a ruthless sea campaign, arousing the ire of neutral countries affected by her unscrupulous methods. German photograph the submarines U 42 and U 35 are seen greeting each other during the successful cruise in the Mediterranean. German submarines of this type were especially numerous in the Mediterranean, where they concentrated on intercepting ships bound for the Dardanelles.

Photo Imperial War Museum



GERMAN MERCHANTMAN OF THE SUBMARINE VARIETY

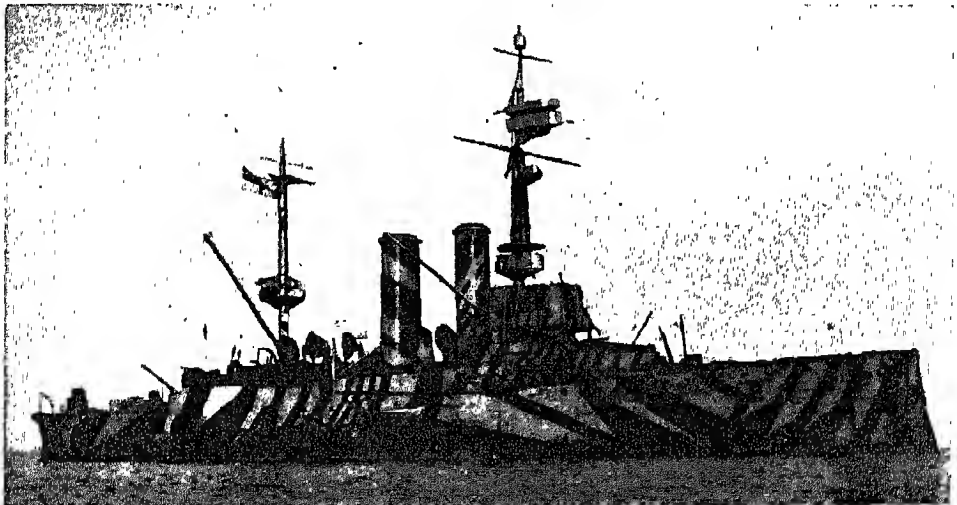
The German submarine *Deutschland*, costing £100,000, was specially constructed for commercial purposes. Manned by a crew of 29, she successfully voyaged to the United States in 1916 with a cargo weighing 750 tons, but on that country's entry into the war in 1917 there was no further object for her existence as a mercantile submarine, and she was converted for offensive use. The photograph shows a German U-boat of the mercantile cruiser *Deutschland* type.

Photo, Imperial War Museum

The submarine merchantman made her appearance during the war in the *Deutschland*, which twice safely proceeded to the United States. A sister vessel, the *Bremen*, vanished at sea, probably sunk by a British mine. On either side submarines of great size were planned but not completed. In practice it proved difficult to handle a submarine so soon as her dimensions approached those of a small cruiser, and, perhaps because of these limitations, no power produced a submarine battleship. The nearest approach to one was in the British M class, vessels carrying one 12-inch gun which could be fired when the

boat, all but the gun, was below the surface. Such large submarines as Germany built were not very successful, and of the large British submarines many were lost during and after the war.

The U-boat crews spied their victims through the periscope, a long tube projected above the surface, down which objects were reflected by a prism. The imperfections of vision in such circumstances led to the introduction of a system of protective colouring for ships, just as animals in their coat or skin adapt their colour to their surroundings. Ships were so painted by a clever system of camouflage



CAMOUFLAGED SHIP THAT PRESENTED A PROBLEM FOR PERISCOPES

The submarine danger caused the introduction of camouflage as an important factor in British naval operations. An ingenious method of painting and disguising ships made it extremely difficult for the submarine crews to discern through their periscopes the nature and course of vessels so disguised, the distinguishing features of bow and stern being confused. An interesting specimen of the designer's art is H.M.S. *London*, looking like a harlequin ship in her weird warpaint.

Photo, Abrahams & Sons, Devonport

that at a distance it was surprisingly hard to determine which was the bow and what was the exact distance and course. The first requisite to hit a ship in movement with a torpedo is to know her course and distance accurately. So useful was this form of protective painting found to be that towards the close of the war the Germans copied it from the British for certain of their ships.

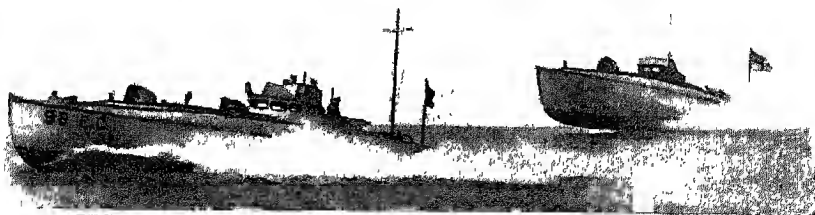
New weapons, some of which were not thoroughly tested, made their appearance in the war. One of them was the torpedo-carrying aeroplane, which was first used by the British in the Dardanelles in 1915.

It was never tried on a large scale against a battle fleet, but that it has great possibilities is obvious. The Germans only employed it once, for the attack on shipping in the Channel, and then with little success. Another new weapon was the coastal motor boat, a small craft of only a few tons that could defy mines and mine fields by gliding over the surface of the water. One of these little vessels twice torpedoed in the Adriatic the Austrian Dreadnought *Szent Istvan*, and sank her. No other Dreadnought was sunk by the torpedo in the war, for the two capital ships hit by torpedoes at Jutland, the *Marlborough* in the British fleet and the *Seydlitz* in the German, both got safely back to port and were repaired.

Approaching by stealth, well nigh invisible at night and so small a target that they are practically invulnerable, these boats will have to be reckoned with in the future. The cost is small, not much over £5,000 or £10,000, and they can be built almost anywhere with great speed. Their

one disadvantage is that they require calm weather and smooth water, so that they are not particularly suited for such stormy seas as those that surround the British Isles. They were largely used in fine weather by the British against the German submarines, when they carried depth charges instead of torpedoes. In an amazing attack which the British made on Bolshevik battleships in Kronstadt harbour, during 1919, four Bolshevik vessels, including one Dreadnought, were torpedoed and sunk in shallow water by seven British coastal motor boats. The British loss was only two boats, though the Bolsheviks had reason to be thoroughly on the alert. This is an indication of the new perils that threaten vessels even when they are lying in harbour. They can be attacked from the air by the bombing and torpedo-carrying aeroplane, and they are also menaced on the surface by the tiny coastal motor boat.

Thus the war confirmed the principles of the past, which can be summed up thus: decisive victory in battle is the most certain method of crushing a hostile navy, and if it is not gained then the naval war will be long and costly. The most important factor in the naval battle is the heavily armed and armoured ship which can deal heavy blows and resist them. Blockade, long maintained, is disastrous to the power which has to submit to it, but it does its work with extreme slowness. The submarine and aircraft have not as yet been thoroughly tested, but in the light of war experience it does not seem that they will affect the principles though they will undoubtedly exercise an increasing influence on the tactics of naval warfare.



BRITISH COASTAL MOTOR BOATS STEAMING FULL SPEED AHEAD

The evolution of the light coastal motor boat as a factor in naval warfare was a result of the necessity for meeting new problems with new remedies. Lightly skimming over the surface of the water, this new type of vessel evaded the deep-laid mines that threatened the safety of heavier sea-craft. One of these motor boats sank the only enemy Dreadnought destroyed by torpedo during the war.

Photo, Abrahams & Sons, Devonport

EFFECT OF THE WAR ON FAITH AND PHILOSOPHY

A Study of Current Tendencies in Western
Man's Attitude towards Spiritual Matters

By C. E. M. JOAD

Author of *Matter, Life and Value, The Future of Life, etc.*

THE faith of a community is normally expressed in certain definite tenets or beliefs which are embodied in what is called the religion of the community. Faith which is systematised in this way in a body of religious belief, to which the bulk of the community subscribes, is called orthodox. Now faith in this sense is almost always adversely affected by some great national calamity, such as a war, great wars being usually accompanied by a diminution in orthodox belief and by a corresponding increase in different beliefs of a very varied character. New cults and creeds spring up to minister to the needs of those who, having ceased to subscribe to the tenets of orthodox religion, are said to have lost their faith, with the result that times of national stress and the periods immediately succeeding them are usually characterised by a multitudinous diversity of different beliefs rather than by a single uniform faith. The Great War of 1914-18 affords a good illustration of this tendency; it has been followed both by a decline of faith in orthodox religion and by a growth of what we may call for short 'faith substitutes.'

The difficulties of faith in war time turn very largely upon the problem of pain and evil. Pain and evil exist at all times, and an authentic instance of either logically presents the same problem as the omnipresence of both. War, which necessarily involves a mass of visible suffering, merely renders the problem more pressing. When men are themselves in pain and see suffering around them, certain questions, which at other times they are content to leave unanswered, insistently force themselves upon their attention.

In the first place, God is commonly held to be both omnipotent and benevolent. If He is omnipotent, He must have created pain and evil. But the deliberate creation of pain and evil is not the act of a benevolent being. Therefore God is not benevolent. If, on the other hand, God did not create pain and evil, they must spring from some source other than God, and, assuming Him to be benevolent, continue to exist in despite of His will. But, in this event, there exists in the universe some power or principle other than God and not created or controlled by Him. God, therefore, is not omnipotent.

Secondly, it is sometimes said that pain and evil are the creations not of God but of man, to whom God in His goodness accorded the gift of free will. This gift man has misused, and its misuse has resulted in the introduction of evil and the infliction of pain. But in introducing pain and evil man has either acted contrary to God's expectation, or he has not. If he has, then God cannot have intended that events should follow the course they have. God, therefore, is neither omnipotent nor infallible nor omniscient. If he has not, then God not only knew that pain and evil would be introduced into the world by man, but wittingly consented to their introduction. But wittingly to permit the infliction of pain and the introduction of evil, when one has the power to prevent them and the knowledge that they will appear unless prevented, is not the mark of a good being. Therefore, God is not benevolent.

Thirdly, it is sometimes said that pain and evil are not real, but are illusions which a deeper understanding of the

nature of things will reveal to us as such. But either pain is real, or it is not. If it is, then, since on the preceding argument it must emanate from God, God cannot be benevolent. If it is not, then the error we make in thinking pain is real is a real error. There is no doubt that we think that we suffer ; and, if this belief is an illusion, then the deception under which we labour is a real one. God, therefore, deceives us about the nature of pain and evil. But an omnipotent being is without the need to deceive ; a benevolent being is without the wish.

It is not intended to assert that these problems are incapable of solution. All religions have, indeed, in various ways attempted to solve them.

Disinclination for fixed dogma But they present real difficulties to suffering men and women, and place a strain upon their faith which it is often unfitted to withstand. The difficulties they raise are increased by the attempt to formulate faith in a creed, and to crystallise belief into dogma. Hence, we shall expect to find that a characteristic of post-war religion is a disinclination to subscribe to definite creeds, with a resultant subordination of the formal element in religion. It is important, therefore, to remember that the number of people who subscribe to the tenets of any particular denomination is no necessary index of the numbers who still retain some form of faith.

Finally, a further special difficulty arises in those cases in which the religious doctrines currently accepted are of such a kind as to express disapproval of the practice of warfare upon which the community is engaged. Many religious beliefs condemn war in common with all forms of violence. That Christianity condemns it more emphatically than most in spirit, even though there may be controversy about the meaning of particular passages, is generally agreed. As a consequence, there arises in war-time an inevitable antagonism between patriotism and faith, between a man's desire to support his country in the struggle in which it is engaged and the doctrines of a religion which bids him offer no resistance to violence and to treat the enemy as his brother.

In this conflict faith suffers in two ways. First, the strongest impulse of the normal man, who conceives his country to be in danger, is to rally to its defence, a proceeding which will almost certainly involve him in fighting and killing. If the plain intention of his faith is to disapprove both of fighting and of killing, he will be driven to seek for some less obvious interpretation which will sanction, or will at least not explicitly condemn, his present activities. He will be compelled to say, for example, that Christianity, although it condemns war in general, does not condemn this particular war ; or that Christ foresaw this war, prophesied it, and in so doing implicitly approved of it ; or that the enemy is antichrist, or, if not antichrist, is at least so wicked that to fight him is to fight for Christ and against Satan. Such interpretations were readily supplied to the people of all the belligerent countries during the Great War ; religion was nationalised for the emergency, and pulpits turned into recruiting offices.

Accepted at the time, these ad hoc interpretations of doctrines designed to meet a particular need cannot but be regarded with disquietude when viewed in the cold light of later reflection. Minds thus disquieted tend to experience a revulsion of feeling against orthodox belief as a whole, allowing their disapproval of the ends that the plain meaning of Christian doctrines has been twisted to serve to discredit, somewhat unjustly, the doctrines themselves. There is ground for supposing that the attitude of the churches during the war, an attitude indistinguishable from that of the ordinary patriot, exercised considerable influence on the subsequent decline in orthodox faith.

Secondly, there were in each belligerent country a few who, confronted with the conflict between faith and patriotism, espoused the cause of faith. Insisting on the literal interpretation of the New Testament, the conscientious objectors in England maintained that their religion expressly forbade them to fight, and accordingly refused all participation in the war. Lacking the sanction of the churches, these men were subjected to considerable

The revulsion against orthodoxy

persecution at the time; subsequently, however, when the inevitable reaction came, their attitude received a fair measure of general support. It is not to be expected that these men, or those who were later induced to share their beliefs, will look with favour on a church which, in their view, betrayed its beliefs in the time of crisis. They retain faith, but it is not orthodox; and the dissidence of these ardent spirits has not been without its influence in causing a drift away from the churches on the part of others.

It is not easy to obtain precise information on the extent and intensity of belief among a people at any given moment. There is, nevertheless, a general consensus of opinion that orthodox belief has declined since the Great War. It is a commonplace that we live in an irreligious age, and the eyes of believers are anxiously fixed on the spiritual horizon in expectation of the rise of a new religious teacher to revive men's beliefs. By some the second coming of Christ is confidently expected.

But, although religious apathy is an undoubted fact, it is extremely difficult to obtain concrete evidence of its extent.

Statistics are of little value

Did the War here, since they relate cause unbelief? mainly to the enrolled numbers of religious organizations, and these, as pointed out above, have no necessary relation to the number of those who have some form of faith. Nor can one say with certainty to what extent the decline in faith is really due to the war. It is impossible, not only because of the difficulty of attributing the generation of a state of mind or belief to any concrete event or set of events, but also because of the generally admitted fact that faith was actively on the decline before the war. The English free churches, for example, undertook during the war a prolonged and extensive examination into the state of religious belief in the army, with a view to ascertaining what were the spiritual needs of the men serving with the forces. The results of the survey were published in a booklet under the title of *The Army and Religion*, the compilers of which declared themselves surprised and pained at the relative ignorance of and indifference

to spiritual matters among men of all denominations. In view of these and similar indications of a growth of religious apathy, if not of positive disbelief, before the war, it is difficult to specify precisely the effects of the special causes connected with the war. Did they precipitate a general collapse of faith; did they merely accelerate a process which was already under way and would have proceeded independently of them; or did they have no effect upon this process one way or the other? We cannot hope to answer these questions; all that we can do is to summarise the scanty evidence available.

What indications, then, have we of the state of belief during and immediately after the great war? They are not many. Hopes were entertained during the war period that the crisis through which the great revival nations were passing might lead to a great spiritual revival. These hopes were not in general fulfilled. In 1916 the Church of England organized a 'National mission of repentance and hope,' which was described as 'a mission of witness by the Church as a whole to the nation as a whole,' and took the form of an endeavour to evoke 'a sincere determination on the part of the nation to seek and deserve divine help.' After various stages of preparation a 'message to the nation' summoning the people to repentance and prayer was delivered in each parish by a large body of 'bishops' messengers' consisting of both clergy and laity. Although the mission was organized on the most elaborate scale, the response was described as 'most disappointing.' It did not succeed in augmenting the dwindling congregations of the churches, nor were there any perceptible signs of its influence in the daily life of the nation. Instead of a general revival of religious enthusiasm, the chief result of the mission was the establishment of a number of committees to consider subjects arising in connexion with it. That the work of these committees was generally regarded as of more importance than the immediate results of the mission itself is a sufficient commentary on the measure of its achievement.

The free churches also made vigorous endeavours to use the national crisis as a

means of revivifying the faith of the people; but for them too the war ended in an atmosphere of disappointment and disillusion. So far was either the war or the peace from inaugurating a new moral world, that it was generally recognized that never within living memory had the nation's standard of morals been so lax or the tide of faith sunk to a lower ebb. The various theological colleges, depleted and generally closed during the war years, were only able to reopen very slowly, owing to a lack of recruits; some indeed have not reopened at all. Both the free churches and the Church of England experienced great difficulties in finding a sufficient number of new entrants into their ministries. In the early years of the twentieth century there were some 21,000 clergymen belonging to the Anglican Church at work in England; in 1928 the number was just over 16,000. Although the depreciation of salaries consequent upon the rise in the cost of living may have exercised a considerable influence, at any rate at first, by rendering the ministerial calling less attractive from the economic point of view, the churches would be the last to admit that material considerations of this kind constituted the chief reason for the prevalent lack of enthusiasm.

Meanwhile church attendances continued to decline. Detailed statistics of the numbers of congregations are in most cases lacking, but it is significant that a number of churches belonging to the Church of England have been closed through lack of support. The free churches, indeed, with their more precise figures of membership, admit to an actual falling off in their numbers during the decade 1910-20. The decline has been an annual one and is attributed to such causes as the increase of Sunday pleasure, emigration from rural to urban districts and the 'spirit of the age.' There is surely little doubt that in this last consideration is to be found the true reason; the others are symptoms of causes other than themselves, rather than causes in themselves. The figures showing the decline in free church membership are more than borne out by the diminution in the numbers of those attending free church Sunday schools.

Developments in America seem to have followed much the same lines, although no actual falling off in the membership of religious bodies is reported. Writing in *These Eventful Years*, Volume II, Dr. Shurler Matthews, dean of the Divinity School, University of Chicago, says: 'During the progress of the war many hopes were expressed that the ideals for which the soldiers were fighting would give a great impetus to the spiritual life of the nation. The war, however, brought no great spiritual uplift.' No great religious movement seems to have been inaugurated as the result of the war, nor were the methods of appeal found effective among the soldiers carried over into peace time.

The general trend of religious thought in the United States seems to have followed one or other of two main tendencies: these are **Characteristics of Fundamentalism and Modernism**. The main characteristics of Modernism are three. First there is a growing interest in life as opposed to doctrine, as the result of which the test of faith is found in actual religious experience rather than in creeds or dogmas. Secondly, there is an insistence upon the importance of this life for its own sake, without reference to its bearing upon our prospects in another. And, thirdly, there is a feeling that the religious attitude of mind, instead of being confined, as it has been in the past, to a particular set of activities springing from an isolated and unique side of our nature vaguely conceived as spiritual, should embrace every aspect of our personality, and extend into all the avocations of daily life. Hence a new emphasis is laid on the social side of religion, and the religious point of view is defined in relation to the world of business and to industrial disputes.

The world, in other words, is out of joint. This is a matter of serious concern, since life in this world is important in and for itself, but it is only through the application of religion to life that the evils of the world can be mitigated. Hence, the aspect of a man's religion, of which it is the business of the church to take cognisance, finds expression in his daily life; his faith is his private concern and should not, therefore, be confined too closely

within the bounds of any creed. The way a man lives is, in short, of more importance than the precise details of what he believes. These characteristics of the Modernist attitude to religion are clearly derivable in part from men's recent experience of war.

The same tendencies are observable in the results of the questionnaire on religious belief which *The Nation* (London) and

The Daily News addressed 'The Nation's' to their readers in the questionnaire summer of 1926. The

Nation drew up in consultation with H. G. Wood, J. M. Robertson, Augustine Birrell and Bernard Shaw a list of questions designed to test the state of belief among its readers. The *Daily News*, with *The Nation's* consent, printed the same list and asked for replies. The questions were of an exceedingly searching character, and, although the replies were confined to a bare affirmation or negation, the results are sufficiently interesting, both as providing a general indication of the state of religious belief in twentieth-century England and as illustrating the tendencies mentioned above, to be summarised here (see annexed table). The figures given are percentages of the total replies returned;

but for comparison it should be noted that the number of those who replied to *The Nation* was 1,849 as against 14,043 replying to *The Daily News*. An examination of the figures reveals the following points:

The belief in orthodox Christianity is still prevalent among the great mass of English people. There is roughly a 70 per cent. majority of believers in a personal God, personal immortality, the divinity of Christ and the divine inspiration of the Bible.

Nevertheless, belief is steadily on the wane. Fifty years, thirty years or even twenty years earlier, the majority in

favour of these beliefs would have been far greater. One estimate, that of a prominent preacher, maintained that in 1900 the corresponding figure would have been 90 per cent.

There is a great fluidity amounting almost to chaos in current belief.

Free thought, or the absence of faith, is far more prevalent among the literary and intellectual elements of society, as witnessed by the answers of *The Nation's* readers. If this section can be regarded as in any sense the advance guard of the community in intellectual and spiritual matters—and it is clear that in some sense it can—we may expect future developments to follow the direction in which it points. The decline of faith, in other words, is likely to become more widespread.

The number of active Christian church-goers is greater (see answers to questions 8 and 9) than the adherents to the doctrine of any particular church.

The number of believers in Christianity as a whole is greater (see answers to questions 6 and 7) than those who are prepared to accept the tenets of any particular creed. Even the fundamental doctrines of the Apostles' Creed are subscribed to by a relatively small number.

QUESTION	THE NATION			DAILY NEWS		
	YES	NO	BLANK	YES	NO	BLANK
1. Do you believe in a personal God?	40.18	55.38	4.43	71.1	26.3	2.6
2. Do you believe in an impersonal, purposive, and creative power of which living beings are the vehicle, corresponding to the Life Force, the 'élan vital,' the Evolutionary Appetite, &c.?	37.75	48.24	13.89	33.5	46.2	20.3
3. Do you believe that the basis of reality is matter?	27.36	57.49	15.14	21.7	59.4	18.9
4. Do you believe in personal immortality?	43.64	47.70	8.65	72.3	22.7	5.0
5. Do you believe that Jesus Christ was divine in a sense in which all living men could not be said to be divine?	35.64	61.43	2.92	68.0	29.8	2.2
6. Do you believe in any form of Christianity?	51.10	43.05	5.83	75.1	20.5	4.4
7. Do you believe in the Apostles' Creed?	21.25	71.01	7.73	53.3	36.1	10.6
8. Do you believe in the formulated tenets of any Church?	24.55	68.41	7.08	52.0	37.7	10.3
9. Are you an active member of any Church?	43.16	55.22	1.62	62.6	34.9	2.5
10. Do you voluntarily attend any religious service regularly? . .	43.15	55.21	1.62	71.40	27.25	1.35
11. Do you accept the first chapter of Genesis as historical?	6.21	91.75	2.64	38.0	53.3	8.7
12. Do you regard the Bible as inspired in a sense in which the literature of your own country could not be said to be inspired?	29.36	68.57	3.13	63.8	33.0	3.2
13. Do you believe in transubstantiation?	4.10	93.61	2.32	10.4	86.5	3.1
14. Do you believe that Nature is indifferent to our ideals?	58.46	23.52	18.00	40.7	35.5	23.8

It is these last two points that illustrate more particularly the spread of what I have called Modernism. Commenting upon the answers to the questionnaire in the course of a sermon delivered at Westminster Abbey, Dr. Barnes, bishop of Birmingham, emphasised the widespread drift from the churches, the refusal to subscribe to definite creeds and dogmas ('A generation ago our young people doubted the first Chapter of Genesis; now they are not prepared to accept so simple a statement of belief as the Apostles' Creed'), and the resultant necessity for evolution in religious belief, if religion is to retain any hold upon the people. The tendencies of such an evolution would be a return to the actual teaching of Jesus, a loyalty

What Modernism to truth as conceived by
seeks to do the present rather than
to the institutions and
traditions of the past, and a growing
admission of the relevance of religion
in general and the principles of Christ
in particular to the daily life of the
individual and to his relations with his
fellowmen. Religion, in short, must become
a social force, if it is to maintain its
position; it must cease to concern itself
with questions of doctrine and dogma,
and devote its attention increasingly to
the problems of the modern world.

Concrete expressions of the Modernist movement include philanthropy of all types, community services, the church support of prohibition in the United States and the intervention of the churches in the mining dispute of 1926 in England. The so-called 'bishops' plan' for the settlement of this dispute, put forward in July, was, though unsuccessful, an admirable illustration of the new conception of the function of religion in social life.

Finally, although there is a majority in favour of the view that the Bible is inspired, the number of those who consider that it is a literal record of actual historical fact is comparatively small (see answers to question 11). Fundamentalism, in other words, has but a small following in England.

Even before the war the success of the Modernist movement had led to active opposition on the part of those who repre-

sented what may be called the traditional or conservative position in theology. These have taken their stand on the verbal infallibility of the scriptures, insisting upon a literal interpretation of the account of the creation of the world given in the first chapter of Genesis, and of passages such as those recording the birth, resurrection and ascension of Christ. The war gave an enormous impulse to this movement. Nor is the reason far to seek.

The war was succeeded by an age of disillusion; it has shattered, at any rate for the time, the Victorian belief in an automatic law of progress, and revealed the weakness of the foundations upon which our civilization rests. There were times during the war when men doubted whether civilization could be saved; there have been times since when they have doubted whether it were worth saving. We have in fact become sceptical not only about the security but even about the value of our achievements. The tremendous advances of science, the increase of power over nature in which they have resulted, the spread of education, of democracy and of what is known as culture and enlightenment, do not seem to have made men either happier or better. On the contrary, they have not been able to prevent the greatest social catastrophe in history.

In face of these developments Christianity has seemed to have lost something of its hold. But may not this loss be due in part to the fact that it has ceased to be Christianity? Scrutinised by the higher criticism, subjected to the study of comparative religions, interpreted and re-interpreted in the light of the spirit of the age, mutilated in order to square with the doctrine of evolution, riddled by rationalism and diluted by Modernism, the faith of the Fathers has been so whittled away as to be scarcely recognizable. Geology, for example, shows that the world took many millions of years in the creating; the first chapter of Genesis says that the creation occupied seven days. In order to keep religion up to date and bring it into conformity with the requirements of science, we are told that the word 'day' must be interpreted symbolically. A 'day' is meant

to represent not a lapse of twenty-four hours, but a period of time of indefinite length. But once this method of interpretation is applied to the Bible, it is difficult, if not impossible, to assign to it any limits. There is no recorded event in scripture, from the miracles of Christ to the fall of man, which may not, if this method of approach be legitimate, be interpreted in a symbolic sense or frankly be dismissed as allegorical.

No wonder, it is said, that religion has lost its hold; no wonder it has proved

unable to stem the forces

Causes of of free thought and
Fundamentalism agnosticism; no wonder

that these forces have

brought disorder and disillusion in their train. The remedy is clear: to accept the Bible as an actual record of historical fact, to interpret its words in their literal sense, to denounce as wicked all doctrines, such as that of evolution, which conflict with those of the Bible, and to endeavour by a return to the simple faith of the Fathers to rescue the modern world from the waves of materialism and agnosticism which threaten to engulf it. In a world of doubt and confusion men are prone to take refuge in the certainty of the written word. The greater the unhappiness of the age, the greater the disasters that beset it, the more insistent does the need for this remedy become. And so it is to the war more particularly that many have attributed the rapid growth of Fundamentalism.

In America, where it is strongest, Fundamentalism has organized active opposition to the Modernist tendencies described above. It seeks to return to a type of belief as rigid and as narrow as that of seventeenth-century Puritanism. The leaders of Fundamentalism, urging the transcendental importance of salvation and the comparative unimportance of this world, do not hesitate to criticise the activity of the Church in social service, and the attempts of the Modernists to bring the Gospel to bear upon social affairs. They have endeavoured, in some cases with success, to obtain control of the state legislatures in America, and, where they have done so, have forbidden the

teaching of evolution in any educational institution supported out of the taxes.

It is, indeed, difficult to assign limits to the spread of Fundamentalism. It may be that it is a late but evanescent development of the war mind which, craving for security in a world that has suddenly become dangerous, finds it and finds it alone in the Scriptures. It is possible on the other hand that it expresses a permanent need of the age, a need which is itself a reaction from the materialism of science and the soullessness of industry. In this event it may conceivably prove to be the first stirring of a real awakening of faith.

Similar causes have contributed to the spread of Roman Catholicism in non-Catholic countries. Roman Catholicism provides a creed in the very fixity and definiteness of which believers find security and comfort. When everything seems doubtful and old be-

liefs are going by the **Converts gained by**
board, the rigidity and **Roman Catholicism**

stability of dogma assumes for certain minds a new quality of appeal. Where the dogma is not only definite but detailed, and purports to provide not only a guide to conduct but a 'right attitude of mind' upon all the questions of the day, its attractions for such minds increase in proportion to the difficulty of the times and the complexity of the issues upon which the individual is called upon to adopt a view.

During the war, moreover, the Roman Catholic Church derived considerable advantage from the fact that it was a non-national church. The pope was enabled to adopt an impartial standpoint, and to follow the dictates of humanity and the principles of religion unhindered by the demands of patriotism or the necessity of thinking evil of the enemies of the state. He continued to give signal evidences of the Christian spirit in the repeated notes which he addressed to the belligerent powers, urging them to consider peace by negotiation; in his efforts to mitigate the ferocity of reprisals, and to ameliorate the condition of prisoners in all belligerent countries; and in the arrangements for the transfer of prisoners, for many of which he was responsible. It is to these expressions of the spirit of

Christ, as rare as they were praiseworthy, that some part of the added prestige of the Catholic Church after the war must be ascribed. As to the growth of its influence in non-Catholic countries there can be no doubt. Both in England and in the United States the number of Roman Catholics has been steadily growing; the number of annual conversions increases from year to year (in England and Wales from 6,511 in 1914 to 12,064 in 1927); there are no complaints of dwindling church congregations, and a movement is on foot for the opening of new churches.

In the sermon by Dr. Barnes quoted above the preacher referred to the growth of superstitious cults and heterodox beliefs consequent upon the general drift away from the churches.

Spiritualism and Christian Science were mentioned as instances of such cults or beliefs, and stigmatised as variants of primitive and obsolete superstitions, symptoms of a religious decay which, in common with unorthodox belief in general, have always flourished when orthodox faith is at a low ebb.

Of the hostility of the churches to what we may call these substitute beliefs, which are recognized as being in some sense the competitors of orthodox religion for the spiritual allegiance of the people, there can be little doubt. The conference of bishops, known as the Sixth Lambeth Conference, which met under the presidency of the archbishop of Canterbury in the summer of 1920, went out of its way to define the attitude of the Church of England to spiritualism and Christian Science as one of declared hostility. The conference saw grave dangers in the tendency to make a religion of spiritualism, 'the practice of which as a cult involves the subordination of the intelligence and the will to unknown forces and personalities,' while the teaching of Christian Science 'cannot be reconciled with the fundamental truths of the Christian faith and the teaching of Scripture.'

Under the heading of psychical research or spiritualism there are grouped together a number of very varied occurrences—table-rapping, automatic writing, water divining, poltergeist phenomena and many

others—most of which have no bearing on the question of individual survival after death, and none of which can be regarded as providing definite evidence of such survival. Before the war the investigation of these phenomena was viewed with hostility by professional scientists and with indifference by the general public; nor was there any evidence of a widespread desire to ascertain whether individual survival could or could not be established. A questionnaire was, in fact, sent out in 1904 with the object of testing this desire, and the results, as analysed by Dr. Schiller in the Proceedings of the Psychical Research Society, indicated that only in a few minds, and in those whose interest was quickened by recent bereavement, was this desire actively present.

The war cut off thousands of young men in the prime of life and brought sudden bereavement to large numbers of homes, with the result that public interest in spiritualism suddenly became active, and psychical research, which had previously occupied the position of the Cinderella of the sciences, became at once popular and reputable. The reason is not far to seek. There is something peculiarly pointless about death, especially when it strikes down men whose powers are still unabated. We cannot bring ourselves to believe that this is really the end, that the strength and the laughter, the prowess and the skill, the knowledge and aspirations of the lost one have all come to nothing. Such a conclusion is repellent to our reason and wounding to our conceit; it robs human life of dignity and divests it of meaning, making of the adventure of living, that seems to us so important, a mere purposeless incident, devoid alike of value and significance. Add to this the craving of those bereaved to see again the face and to hear the voice of the loved one who has gone, and the lively interest in the question of individual survival which war generates is readily intelligible.

Nor is it an impartial interest; it is predisposed from the beginning by the strongest possible incentive to believe that there is survival, and, since the majority of the students of psychical research, including all those whose

Senselessness
of Death

enthusiasm outruns their sense of the value of evidence, are themselves convinced that there is, the post-war popularity of spiritualism as a means not only of establishing the continued existence of the dead, but of communicating with them, needs no further explanation.

The less desirable elements in this change of attitude on the part of the public found expression in the outburst of credulity that was incidentally responsible for the legends of the 'Angels of Mons' and the 'Russians from Archangel,' an outburst to which the ministrations of quack mediums were invoked to give a quasi-scientific countenance. Professional 'psychics' attained an enormous vogue, and assumed the rôle of the modern successors of those astrologists, alchemists, fortune tellers and magicians who in every age have flourished on the fears and hopes bred of times of stress and danger. Even when the mediums were not deliberately fraudulent, they were persons devoid of scientific training and innocent of any suspicion of the tricks which their psychology was capable of playing on them.

A more reputable status, however, was afforded to the whole movement by the publication in 1916 of Sir Oliver Lodge's *Raymond*. The book gives an account of the communications, purporting to come through a medium, Mrs. Leonard, from Sir Oliver's son who had been killed in the war. Neither about the quality nor the quantity of these communications was there anything remarkable. The account of the life of those who had passed over, a life in which ghosts smoked cigars and drank whiskies and sodas, did not differ markedly from the descriptions of the 'summerland,' as it is called, that had been the stock in trade of psychic communications for the preceding fifty years; nor had sceptics any more difficulty in assigning a perfectly natural explanation to the events recorded.

Nevertheless the reputation of Sir Oliver Lodge and the state of mind of the public ensured for the book an unprecedented publicity. Scores of similar books written by less distinguished authorities followed in its train, and the stimulus to research

provided by this great accession of public interest continued for many years after the war. It is perhaps needless to add that no definite and agreed evidence of survival has rewarded the wave of popular interest, although a great deal of new light has been thrown on this obscure borderland between science and religion.

To considerations similar to those which have caused the recent vogue of spiritualism must be attributed the spread of The tenets of
Christian Science Christian Science. Spiritualism has flourished because men have been unable to tolerate the apparent pointlessness and futility of death; death, they have argued, cannot be really what it seems—it would be too meaningless. Christian Science has spread because of men's refusal to accept the apparent pointlessness and futility of pain. That pain should be just what it seems is no more tolerable than that death should be just what it seems; it must, therefore, be in some sense illusory. And Christian Science, which has asserted that it is illusory, in the sense that a right attitude of mind combined with the proper exercise of will can cause it to disappear, has flourished accordingly. When a generation to which pain has hitherto been an incident is suddenly subjected to gross physical suffering in its most appalling forms, the temptation to adopt this point of view is very strong. To reject it is to imply a doubt on the one hand of the goodness of God, and on the other of the supremacy of mind over matter. That pain is in a sense unreal, that God does not will it, and that it arises because of man's own wickedness has always been the teaching of orthodox Christianity. But suffering men and women may well require a more concrete and sensational application of the doctrine than the Church permits.

Christian Science, which teaches, first, that pain is unreal, and secondly, if somewhat inconsistently, that faith in God combined with prayer and supplication will cause it to disappear, has appealed with peculiar force to the needs of the time. On the positive side there is the fact that drastic ills require a drastic remedy, and that, where the universe appears to

'be given over to the powers of darkness, and men's traditional beliefs are subjected to an intolerable strain, those who still cling to a faith in the goodness of the scheme of things demand a creed as dramatic as the fears it is designed to allay.

Christian Science is a challenging assertion of the goodness of God, of his direct intervention in the affairs of men, and of the supremacy of the spirit over the flesh. It was, therefore, admirably adapted to the circumstances of the time, which called for a dramatic vindication of beliefs that there seemed only too much ground for doubting.

The following figures provide in this connexion an interesting contrast. A comparison between church and chapel attendances in a typical London area with a population of over 80,000 shows that in 1886-7 the total number of persons attending was 12,996, and the average attendances in 44 services was 295. In 1902-3 the total was 10,370, and the average at 56 services 184. In 1927 the total was only 3,960 and the average in 62 services was 63. In 1906 the Anglican and free churches could claim between them 6,455,719 Sunday-school scholars. In 1918 the number had shrunk to 4,748,872.

During the same period the number of Christian Science churches increased with great rapidity. Whereas in 1910 there were 1,207, of which 1,077 were in the United States and 58 in England, in 1920 the corresponding figures were 1,804, 1,590 and 98 respectively, and in 1926 the total number of churches had risen to 2,250. In 1914 some 1,500 Christian Science lectures were given to about 1,000,000 people; in 1926, 3,432 lectures were given to approximately 2,669,890 people. Christian Science doctrines have spread since the war to France, Germany, Italy, Denmark, Norway, Sweden, Spain, Russia, Holland and Greece. The spread of faith healing, which was a feature of the years 1923-25, and the beliefs which it implies may be attributed to the same causes.

A few words must be added on psycho-analysis, the growth of which was so marked a characteristic of the post-war years. Between this growth and the

decline of orthodox faith already recorded it is not difficult to trace a definite connexion. The work of Freud and Jung and their respective followers has demonstrated beyond the possibility of doubt that very little, if any, of our experience is lost to us. Whenever we say that we forget something that has happened, what we do is to repress it into an unconscious region of our minds. The mind, in fact, has invisible extensions as real and as important as the area which is normally accessible to consciousness. Now when an idea or experience is forgotten, is repressed, that is to say, into this unconscious region, it does not necessarily cease to be active. It exerts an influence upon our conscious thinking which is none the less potent because unperceived, determining alike the colour of our thoughts and the direction of our wishes. This doctrine is developed by many psycho-analysts into the assertion that virtually all our conscious thoughts and desires 'spring,' to adopt their phrase, 'from the unconscious.'

It will be readily seen that this doctrine cuts at the basis of human responsibility. We are not responsible for the contents of our unconscious; we do not know what is going on in it, and we cannot, therefore, control it. Nevertheless, we are told that what happens in consciousness is the direct outcome of the sum total of the influences exercised upon consciousness by the unconscious. It is not here maintained that this doctrine is true in all that it asserts; nor is its bearing upon the question of free will necessarily such as is here stated. Some part of it is, however, quite certainly true, and all of it is exceedingly popular. A great many people do in one form or another hold the doctrines popularised by the psycho-analysts, and their view of human personality and human freedom is unconsciously affected thereby. In this tendency, which psycho-analysis undoubtedly encourages, to diminish human responsibility the relationship between its spread and the decline of orthodox faith is to be found.

The average human being cannot endure the thought that he is a completely free agent, the burden of being able to think

and to do precisely what he pleases being for the ordinary man intolerable. That is why the army and the church have always been his two most popular institutions. All codes of morals, and we may add most religions, owe their effectiveness and appeal to their whole-hearted recognition of this fact. They have not hesitated to tell the individual how to act and what to think in any moral or spiritual difficulty with which he may be confronted, and in so doing they have transferred the burden of his freedom to their own shoulders.

The most striking example of the part played by religion in thus lightening the load of human responsibility is afforded by the Christian doctrine of repentance and forgiveness. A man sins—that is to say, he acts in a way repugnant to his conscience or moral sense. As a consequence the moral sense which he has outraged proceeds to make him wretched; he feels, as we say, remorse. This process remains unaffected, whether we regard the moral sense as an unconscious recognition

of the fact that something has been done of which society will disapprove, that is, as an unconscious fear of public opinion, as a survival of tribal taboos, or as a direct intimation given to the individual of those actions of which God disapproves. So long as the individual's sense of complete accountability for his wrongful action continues, the remorse persists. The Christian religion provides an avenue of escape from this feeling of remorse by assuring him that, if he confesses his sin and repents of it sincerely, then God will forgive him, and it will be as if he had never sinned at all.

It will be seen that in affording a way of escape from the continuing results of our actions, by putting a term, as it were, to our moral accountability, this aspect of faith abates something of the full rigour of the doctrine of human responsibility, and so lightens the terrible burden of human freedom. But, if he is to find the solace effective, the individual must be quickened by a lively faith in God and His mercy. When this faith is sapped, it becomes necessary for him to find some other method of avoiding, at least in his

own eyes, the full measure of moral accountability for his actions. He must find some means of stilling the reproaches of his conscience, and no better method of achieving this end than that offered by psycho-analysis could well be devised.

In assuring him that the springs of his conduct lie in the unconscious, that the desires arising therefrom escape detection and so evade control, it also destroys his accountability for his actions, and so diminishes the full rigour of his sense of freedom. Its appeal, therefore, to those whose faith has suffered as a result of the war is based in part upon that same need of human nature in which the appeal of religion was grounded. The growth of the one is the natural counterpart of the decline of the other.

So far as philosophy in the strict sense is concerned, the war does not seem to have had any discernible effect upon current metaphysics. It is, in any event, too early as yet to affirm with any certitude that such developments as have occurred have been due to or even influenced by the war. Certain tempting

theories may be, and have been, advanced; as, for example, that the growth in

favour of the theory of the limited deity, a view which finds expression in one or other of the various forms of the modern doctrine of creative evolution, is the outcome of men's recognition of the incompatibility of an all-powerful God who is also benevolent with the phenomena of war; that the acceptance of that interpretation of the universe with which Thomas Hardy's novels have made us familiar, an interpretation which ascribes the occurrence of events to the operations of a blind and indifferent fate, is the product of war psychology; or that the modern insistence upon the importance of instinct as determining man's conduct, and the consequent belittlement of the part played by reason, is due to the same cause.

But interesting as these speculations are, it is impossible to substantiate them. It is equally certain that there would be no general agreement with regard to any particular connexion which we might seek to establish between these undoubted tendencies of modern thought and the war.

TABLE OF DATES FOR CHRONICLE XXXIII

- [1918 Nov.: Germany submits to armistice terms dictated by Allies (11th). Yugo-Slav constitutional monarchy and Austrian, Czechoslovakian and Hungarian republics proclaimed. William II abdicates. Bulgaria: Ferdinand abd.; acc. Boris.
Great Britain: Lloyd George's coalition ministry.
- [1919 Jan.: Peace Conference of Paris opened between the 'big five,' attended by the Associated Powers.
Feb.: Ebert elected president of German Republic.
March: Communists seize Hungarian government.
April: Conference adopts League of Nations Covenant.
June: Treaty of Versailles signed.
Aug.: Rumanians occupy Budapest. Anglo-Persian and Anglo-Afghan agreements.
Sept.: D'Annunzio seizes Fiume. Peace treaty of St. Germain-en-Laye with Austria.
Oct.: International Labour Conference for examination of common industrial problems opened at Washington.
Nov.: Peace treaty of Neuilly with Bulgaria.
Dec.: Government of India Act, applying Dyarchy in British India.
- [1920 Jan.: Mustapha Kemal in Anatolia; 'National Pact' of Angora.
First meeting of League of Nations Council.
Feb.: War between Poland and Soviet Russia; Estonian treaty of Dorpat with Russia.
March: U.S.A. rejects Versailles treaty.
German troops enter the Ruhr to suppress communist disorders.
April: French troops occupy Frankfurt and Darmstadt.
Conference of San Remo allots mandates.
June: Greek advance against Turks in Asia Minor.
Peace Treaty of the Trianon with Hungary.
Settlement of Aaland Islands question between Sweden and Finland by reference to the League.
July: Germany at the Spa conference on reparations.
Aug.: Treaty between Czechoslovakia and Yugoslavia.
Treaty of Sevres with Turkey (unratified).
Russo-Latvian treaty.
Russians invading Poland defeated on the Vistula.
Oct.: Russo-Polish armistice; Polish troops take Vilna.
Nov.: Treaty of Rapallo (Italy and Yugo-Slavia) to settle Fiume question.
First meeting of League of Nations Assembly.
U.S.A.: Election of President Harding.
Dec.: Irish Government Act becomes law.
- [1921 Russian treaties with Persia, Afghanistan and Angora. Conferences of Paris and London.
March: Russo-Polish peace of Riga; alliance of Poland and Rumania; Anglo-Russian trade agreement.
Germany declares to incredulous Allies that she cannot pay. Sanctions put in force.
June: Little Entente linked up. British Imperial Conference.
Aug.: Silesian question referred to the League.
U.S.A. issues invitations to the Washington Conference on reduction of naval armaments.
Nov.: Washington Conference opened. Albanian republic recognized.
Dec.: Four Powers Treaty takes place of Anglo-Japanese alliance. Treaty of Washington.
- [1922 Jan.: Cannes conference.
Feb.: Court of International Justice opened.
Great Britain declares Egypt independent, with reservations for security.
April: Genoa conference; German-Soviet treaty of Rapallo; temporary non-aggression pact.
Aug.: Greek rout at Kalahissar.
Sept.: Turks burn Smyrna and march on Straits. Constantine abd.; acc. George II.
Oct.: Neutrality of Straits preserved; armistice of Mudania. Fascist ministry in Italy under Mussolini. Bonar Law ministry in England. Angora government abolishes Sultanate.
Nov.: Flight of sultan; Abdul Mejid made khalif. Conference of Lausanne opens for settlement of Turkish question.
- 1923 Jan.: Germans declared in default with reparations; Ruhr occupied by French and Belgian troops. Germany issues passive resistance order; fall of the mark. Turks reject the draft treaty of Lausanne.
Feb.: China denounces treaties with Japan. Vilna recognized as Polish territory.
May: German proposals rejected. First Baldwin ministry.
July: Turkey accepts amended Lausanne treaty. Entente relations strained by Ruhr question.
Aug.: Stresemann ministry takes office.
U.S.A.: Acc. President Coolidge.
Sept.: Cancellation of passive resistance order. Greek-Italian question of Corfu settled.
Spain: Dictatorship of Primo de Rivera.
Oct.: Mustapha Kemal Turkish president.
Dec.: Two committees of experts appointed to examine German reparation question.
Greek republic proclaimed.
- 1924 Jan.: Adriatic treaty (Italy and Yugo-Slavia). Macdonald ministry in England.
Feb.: Turkish government abolishes Khalifate.
March: Adoption of Dawes Reparation Report.
July: London Conference; U.S.A. agree to take part in Reparation Commission.
Aug.: French begin evacuation of Ruhr.
Oct.: England and Turkey accept League settlement of Irak boundary. Publication of Zimoviev letter; second Baldwin ministry. The League adopts Geneva protocol, which is rejected by England in favour of regional pacts (Nov.).
Nov.: President Coolidge re-elected.
England rejects Russian commercial treaties.
Dec.: Sun Yat-sen's government recognized.
- 1925 Feb.: Germany suggests a security pact relating to the Rhineland.
April: Hindenburg elected German president, but disappoints the hopes of the Junkers.
May: Anti-foreign (especially against British and Japanese) riots in China.
March: Sun Yat-sen d.; constant hostilities between the Kuomintang Nationalist government in the south and Chang Tso-lin's military government at Peking.
July: German proposal receiving favourable consideration, but a supplementary pact relating to the eastern German frontier does not command the adherence of England and Italy.
Oct.: Arising out of this the Locarno Conference meets, with Germany on the same footing as the other powers, in an unprecedented atmosphere of conciliation and good will.
Rhineland pact adopted, with a series of arbitration conventions.
Demirkapu incident; frontier collision of Greek and Bulgar forces; war averted by intervention of the League.
Dec.: Ratification of Locarno treaties; British begin evacuation of Cologne. Deposition of shah of Persia; Rhiza Khan elected shah.
- 1926 March: Germany's admission to the League suspended by action of Spain and Brazil.
England: Long coal and short general strike.
Rise of Chiang Kai-shek as general of the Kuomintang.
Aug.: French operations against Abd el-Krim.
Sept.: Germany enters the League of Nations.
Nov.: British Imperial conference adumbrates without defining the meaning of 'Dominion status.'
- 1927 Spring: Kuomintang captures Hankow, Shanghai and Nanking.
Numerous minor arbitration and security treaties; failure of Geneva conference on reduction of naval armaments.
- 1928 April: Kellogg formula for the outlawry of war submitted to the great powers.
June: Chang Tso-lin d.; Kuomintang established at Peking. Chiang Kai-shek president (Oct.).
Ang.: Acceptance of Kellogg Pact by fifteen 'nations,' followed by others.
Dec.: Albanian republic elects King Ahmed Beg Zogu.
Afghan revolt against Amanullah.
- 1929 Jan.: U.S.A. ratify Kellogg Pact.
Absolutist revolution in Yugo-Slavia.
Feb.: Vatican treaty with Italy restoring temporal sovereignty to the Papacy.

AFTERWARDS: 1918-1929

FOR four years and a hundred days all Europe and much of the world outside Europe had been whirling in the maelstrom of the Great War without time or thought to spare for anything but the war in some of its many aspects. The war had wrecked the foundations of the entire pre-war fabric—international, industrial, constitutional, social, religious. All the greater historic states and peoples, with the exception only of Spain, the Dutch, the Swiss and the Scandinavians, had been involved in it as active or at least nominal belligerents; among the active belligerents, determination to win at whatever cost had overshadowed every other consideration.

When it ended, the Austrian, Russian and Turkish empires had ceased to exist, though Austria, Russia and Turkey survived; the German empire in Europe was intact save for Alsace, but was no longer focussed in the person of an emperor. Half a dozen nationalities, or groups, had separated themselves from the broken empires and were clamouring for recognition as independent states, apart from the territorial claims upon one or another of them of other already established states. The territorial chaos was incomparably greater than it had been when Napoleon was interned in St. Helena.

Chaotic State of the Post-war World

NOT less was the industrial chaos. For the industrial world had been drained of its young manhood to fight instead of training itself in industry; millions of these had perished, and millions more were physically wrecked or at least partially incapacitated, and industrial employment during those years had been restricted to the production of the bare necessities of life or of munitions of war in some form—not wealth, but the machinery for destroying wealth; machinery which had been appallingly successful in effecting the purpose for which it had been created, while it perished simultaneously itself. Again, on all sides governments were

tottering, if they had not already fallen; the governing capacity of the governing classes, if not of all governments, was in the crucible; they were responsible for the war, the mismanagement of the war, and all the havoc that it had wrought. In the more democratically ruled countries hostility to the old order was less virulent: most virulent in those which had been most despotically ruled in the interests of particular sections of the community. But in all was the virus.

Ethically the disappearance of regulated discipline at home among the young, coupled with the reaction of their elders against the rigid discipline of battle service to which they had willingly or unwillingly submitted themselves, told heavily against moral restraints of every kind; while the fearful devastation and suffering caused men, when they turned their thoughts to religion, to feel as they had felt in the days of the Norman King Stephen when they cried out that 'Christ and His saints slept.' The world, to put the thing in its simplest terms, had to recover balance, and for years after the war was over it was still rocking.

Objects of the Peace Makers

WITH the cessation of hostilities, the first necessity of the moment was to ensure against their present recrudescence, which, from the point of view of the victors, meant to paralyse Germany for hostile action. That was practically effected by the terms of the armistice, which imposed on her immediate disarmament and surrender to the victors of military stores and material. The next step was to formulate such a general settlement as should provide the strongest possible guarantee for the future against the resort to arms for the adjustment of international differences. Theoretically, the Vienna Congress of 1814-15 had the same object in view; but it failed to attain it, though it had prevented international wars for nearly forty years.

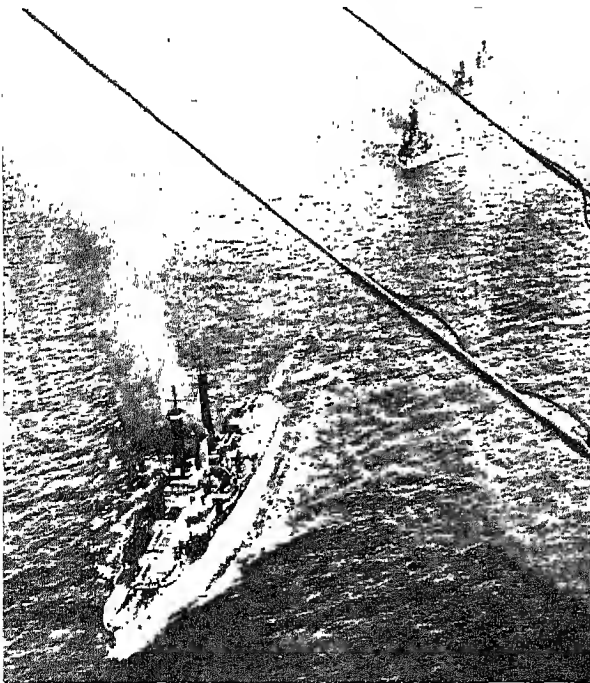
Precedent demanded the immediate adjustment of inter-state boundaries,

transfers of territory, recognition of new states, indemnities which the victors were entitled to claim from the vanquished in the great conflict. But much more than this was required if the peace was to end not only the war which had just been fought to a finish, but the menace of wars greater and even more destructive in the future. The matter was taken in hand by the 'big five' who had been mainly instrumental in winning the war—France, Great Britain representing the British Empire, the United States of America, Italy and Japan; in consultation with the minor states but clearly with the intention that what the 'big five' agreed upon must prevail; though with the serious difficulty in the background that America might—as she ultimately did—refuse to ratify the decisions of her representative, President Woodrow Wilson.

This however was a point which did not affect the drafting of the peace treaty, in

which the American president took a very leading part, since it was largely based upon the 'fourteen points' which he had enumerated as essential, and it was he who most unhesitatingly insisted on the inclusion of the Covenant of the League of Nations as a fundamental portion of the treaty itself—something vitally different from the 'Holy Alliance,' not of peoples but of princes, with which Alexander I, having the same object in view, had sought so ineffectually to supplement the Treaty of Vienna in 1815.

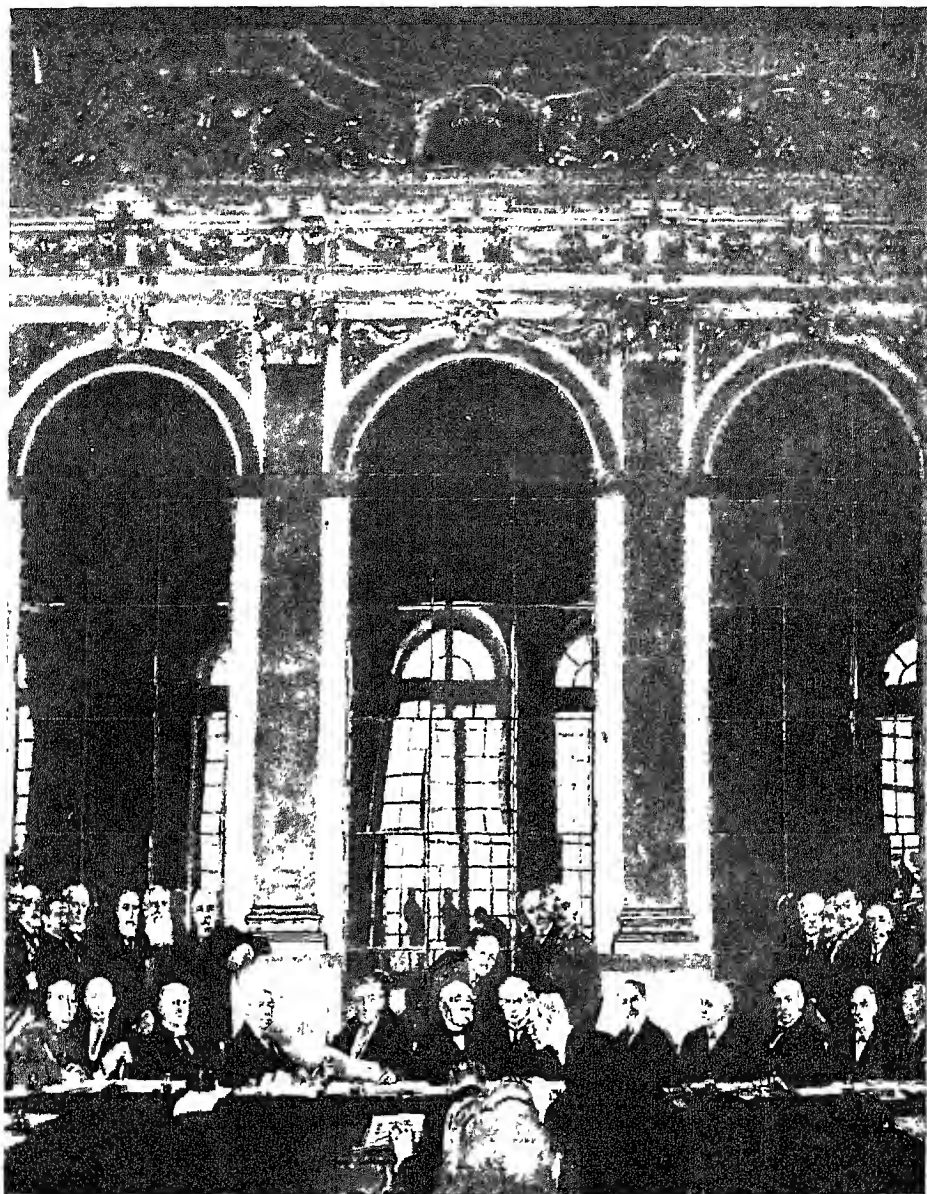
THE treaty, then, was to be a treaty of peace between the victors and Germany to which all the signatories would be pledged; to be supplemented by further treaties with Germany's allies. The enormous task of shaping and drafting it was carried through in the first months of 1919 by the representatives of the big five—though Japan took active part in it only when it dealt with matters in which she was concerned—with the assistance of the delegates of the other states in relation to matters with which they were directly concerned. Germany's share in it was confined to ineffectual protests against terms which were imposed upon her, having as the only alternative the advance of the Allied armies into the territories which she was no longer in a position to defend. On May 7 the German delegates met the delegates of the 'Allied and Associated' powers, who were already in possession of the treaty terms. They were given some six weeks to accept or reject them; but it was not till June 28, when they had been threatened with an immediate advance of the Allied troops, that the Treaty of Versailles was actually signed by the assembled delegates in the same Hall of Mirrors where, in 1871, William I had been proclaimed German emperor.



THE GERMAN FLEET SURRENDERS IN 1918

The terms of the armistice imposed by the Allies included the surrender of all German submarines and the internment of many of their warships. Of the German surface ships which came to Rosyth for internment on November 21, 1918, the majority was sunk by their crews at Scapa on June 21, 1919.

Photo, Royal Air Force, Official Crown copyright



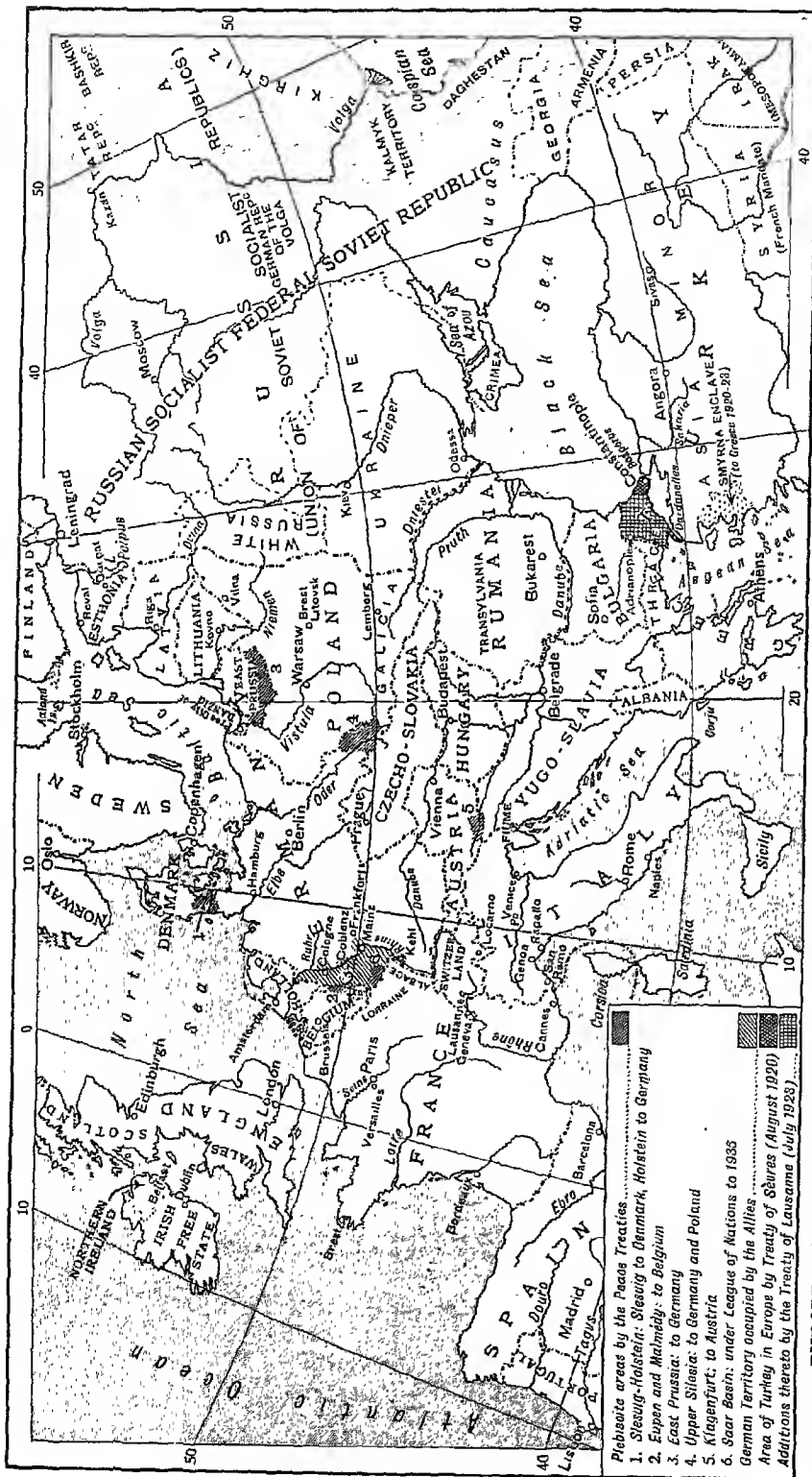
THE SIGNING OF THE PEACE AT VERSAILLES IN 1919

The international peace treaty that concluded the Great War was signed in the historic Hall of Mirrors at Versailles on June 28, 1919, and its signature is the subject of this fine painting by Sir William Orpen. Seated, from left to right, are General Tasker Bliss, Colonel House, Henry White, Robert Lansing, Wilson, Clemenceau, Lloyd George, Bonar Law, Arthur Balfour, Viscount Milner, G. N. Barnes and Marquis Saionzi; signing, the German delegate, Dr. Johannes Bell.

Copyright Imperial War Museum

The treaty opened with the Covenant of the League of Nations, to which the 'High Contracting Parties' declared their agreement, and then proceeded to the reconstruction of the map of Europe in relation to Germany and the conditions,

penal or otherwise, to be exacted from her. As a matter of course Alsace-Lorraine—the provinces taken from France in 1871—were restored to France. East Prussia remained attached to Germany, subject to local plébiscites, which proved to be



EUROPE AS REARRANGED BY THE SUCCESSIVE TREATIES FOLLOWING THE TERMINATION OF THE GREAT WAR

Whereas after Waterloo the policy on which the redistribution of Europe was effected was governed by dynastic considerations, the basic principle of its redistribution by the Treaty of Versailles in 1919 was the satisfaction of national aspirations and recognition of the right of the smaller nations to self-determination. In this map the main divisions of the new Europe are shown with shaded portions indicating areas where the ultimate settlement was left to plebiscite, also the areas in German territory occupied by the Allies pending fulfillment by the Central powers of obligations imposed upon them by the Treaty.

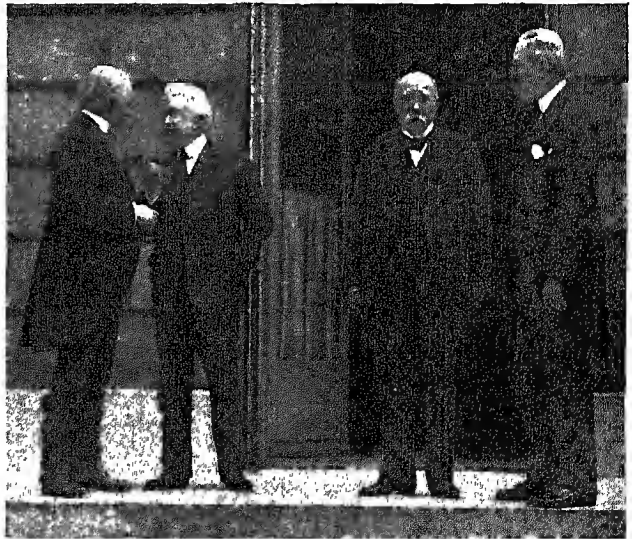
Afterwards

decisively in favour of that course; but she was deprived of the trans-Niemen territory, which was subsequently allotted to the new state of Lithuania. Poland was restored as an independent state, with a corridor to the port of Danzig, which was to be an independent free city under the protection of the League of Nations. Czecho-Slovakia, comprising what had been the northern Slavonic provinces of the Austrian empire, excepting those which were again attached to Poland, was also recognized as an independent state. The question whether certain Germanised portions of these lands should remain German or be included in Poland was left to later settlement, preferably by local plébiscite. Denmark's claim to Slesvig, of which Prussia had deprived her in 1864, was to be decided by plébiscites, which ultimately gave one portion of it to Denmark and another to Prussia. There were adjustments with regard to Belgian territory and a highly complicated arrangement with regard to the German Rhineland on the French frontier, which for ten years to come was to prove a fruitful source of friction.

The territorial arrangements of the Treaty of Versailles were theoretically completed by the supplementary treaties with Germany's former allies. The Austrian treaty of St. Germain-en-Laye opened with the 'Covenant.' It divided what had been the Austrian empire into the separate states of Austria, Hungary and Czecho-Slovakia, while it transferred Galicia to Poland, Bukovina and part of Transylvania to Rumania, and the South Slav districts to Serbia, and gave to Italy not only all the Italian-speaking districts, but also the German-speaking districts of South Tirol. The most serious difficulties here were in the adjustment of the

rival claims of Italy and Serbia or Yugo-Slavia. The treaty of the Trianon with Hungary, the other member of the former official Dual Monarchy, of which various portions had been assigned to Czecho-Slovakia, Yugo-Slavia or Rumania, leaving Hungary about half its former size, was not completed until June, 1920. Bulgaria, by the treaty of Neuilly (November), lost her coast line on the Aegean, but was secured 'economic outlets' thereto. The Treaty of Sèvres with Turkey was never signed by the sultan, so that it passed into oblivion. The United States having declined to commit themselves to the League Covenant, that power was not a party to any of the treaties, but made its own separate terms with each of the states with whom it had itself been at war.

Other independent states appeared in the new map of Europe, on the Baltic. Soviet Russia had so far committed itself to doctrines of 'self-determination,' the principle on which the powers had endeavoured to base their treaties, that it could raise no objection when these provinces separated themselves from her.



REPRESENTATIVES OF THE 'BIG FOUR'

Of the 'big five' mainly concerned in arranging the terms of the peace treaty that ended the Great War, Japan only took active part in so far as she was herself affected. Representatives of the other four powers, Britain, Italy, France and America, are (left to right) Lloyd George, Orlando, Clemenceau and Woodrow Wilson.

At the head of the Baltic came Finland, then Esthonia, then Latvia and finally Lithuania, which had been united with Poland under one crown since her Duke Jagellon (see page 3008) acquired the Polish crown, an association which was now terminated.

The rearrangement made by the Treaty of Vienna a century earlier, after the Napoleonic wars, had been based wholly upon monarchist doctrines of dynastic legitimacy, entirely ignoring ideas of nationality or affinity, and the claims of peoples—as distinguished from the dynasts—to a voice in their own disposal. Now, 'sceptre and crown had tumbled down' in the defeated states; there was no thought of restoring them; Romanovs, Hapsburgs and Hohenzollerns had fallen, and with them all the lesser dynasties of the German Empire. In the new settlement, dynastic claims counted for nothing; the purpose in view was to give to national affinities the first claim to consideration and, so far as was practicable, to minor groups which did not desire or could not be accorded independence the right of self-determination; that is, of choosing for themselves by plébiscite the recognized state to which they should be attached. But in many areas the populations were compounded of diverse or positively antagonistic elements, so that any attempted solution must fail to be satisfactory to all. That dissatisfaction would rise to angry and even perilous heights was hardly to be doubted; but no settlement could conceivably have been made which would not have involved that risk.

Settlement Outside Europe: the 'Mandate'

GERMANY was the only one among the defeated powers which had possessed dominions over sea. From them she had been completely ejected in the course of the war, and by the peace treaty she resigned all claims to them. They were not annexed to any power, but were dealt with by 'mandate' under the terms of the League Covenant, which entrusted their administration for the most part to Great Britain, to be ruled in the interests of their respective populations. Mandatory powers were to be in effect trustees for the

League. Arabia remained under the chief who had been proclaimed sultan of the Hejaz; in 1920 the mandate for the administration of Syria was given to France, and for Mesopotamia and Palestine to Great Britain. For the time the Porte retained almost nothing in Europe except Constantinople, the terms of the armistice with Turkey remaining in force as the Treaty of Sèvres was unsigned.

Difficulties of European Reconstruction

IN the reconstruction of the map of Europe the treaties dealt with a subject bristling with difficulties, conflicting interests and sources of friction not only between victors and vanquished but also among the victors themselves; but by creating the League of Nations (see Chapter 183) it was hoped that they had at the same time provided an instrument by means of which defects in the treaties might be subsequently compensated, since it was morally certain that defects would be found. But besides the territorial arrangements and the creation of the League, they had to deal with another extremely thorny subject—the reparations and indemnities which the victors severally might justly claim from the vanquished for the sufferings and losses inflicted by a war for which in the view of the former the whole responsibility lay upon the latter; who, as they held, had also conducted it with an unprecedented disregard of the recognized ethics of warfare between civilized states. And as against those claims they had to calculate the effective capacity for making them good. And in addition they had to provide security against any attempted repetition of the offence of which in their view those powers had been guilty.

The fear of renewed German military aggression in the future was in the nature of things much more prominent for France and Belgium than for anyone else; on the question of the share of compensation due to itself and to others every state had its own views, and those views were divergent; and on the question of capacity to pay there were not and could not be adequate data, while there was everywhere a strong popular disposition to exact the uttermost

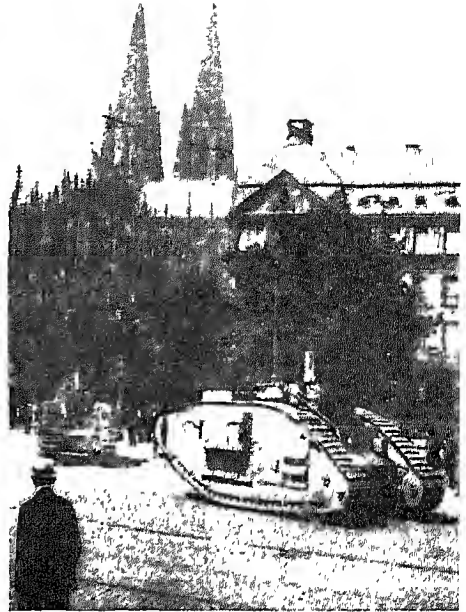
Afterwards

farthing rather than to consider the general economic effect of so doing.

The problematic character of the whole situation was further complicated by the fact that Russia was an unknown and incalculable quantity. The powers found themselves quite unable to recognize the Soviet government as one which could be relied upon to keep faith and carry out its engagements; since its agents were notoriously and avowedly employed abroad in a propaganda which aimed at the overthrow of all existing governments, its activities within Russia itself were condemned by all civilized opinion, and it had already repudiated all obligation to carry out engagements undertaken by the Russian government in the past. The powers desired to revive a settled order; Russia desired to destroy settled order; the two aims being obviously incompatible, there was no possibility of arriving at agreement as to the means. The powers wanted security, and Soviet Russia was a standing menace to all security.

ON what we have called the third question, then, there were two aspects of the problem for settlement: compensations, and guarantees for Germany's neighbours against future aggression. The latter was concerned with Germany's effective disarmament, the demilitarising of the German frontier territory facing France and the present occupation thereof by the Allies. The indemnities imposed were far short of what was considered adequate compensation, but, on the other hand, according to the Germans far in excess of anything they could possibly pay. If they were compelled to make promises, the promises were accompanied by warnings that it was in fact quite impossible to execute them.

At the same time the withdrawal of the Allied forces from the frontier provinces was made conditional upon their execution: and it continued by no means easy for the Allies, and above all for France, to believe in the honesty either of the German protests or of professions of complete disarmament. Napoleon had disarmed Prussia drastically enough after Jena, but the result had not been what he



BRITISH TANKS ON THE RHINE

The Allied occupation of Cologne and a bridge-head of eighteen square miles on the east bank of the Rhine was provided for in the terms of the Armistice. Cologne became the headquarters of the British army of occupation; its cathedral can be seen in the background above.

Photo, Imperial War Museum

had intended. The Allies were in no mood to rely upon German good faith without the most convincing material guarantees; the Germans were resentful both of the charges brought against them and of the penalties exacted, so that the tone they adopted was not calculated to allay distrust. If the British were disposed to be more lenient than the French, with their devastated lands under their eyes, it was only because it was easier for them to be so. The rival parties to a dispute can hardly be expected to form an unbiased judgement on the issues, and in the nature of the case one of the parties was here unequivocally the judge as well.

The natural result was that the terms were drastic, and did not tend to early reconciliation. There was a prospect of at least modifying the nervousness of France in the proposal, to which both President Wilson and the British government assented, that America and Great

Britain should jointly guarantee the security of France against German aggression; but it came to nothing, because it was essential that the guarantee should be a joint one, whereas, as with the League of Nations, in the devising of which the president had played so large a part, America refused her ratification. France remained with no more security than she could derive from the Treaty of Versailles. Inevitably therefore she was resolved to let go nothing that she could logically claim under its terms. She would take no risks—and Germany as victor in 1871 had acted strictly upon the same doctrine.

Diplomacy by Conference

THE series of treaties between the 'Allied and Associated Powers' on one side and the defeated powers on the other was left incomplete, inasmuch as the Treaty of Sèvres with the Turks remained unratified. Nor did they cover the agreements which it was necessary for the major and minor powers to arrive at among themselves before a permanent atmosphere of amity could be attained. The powers, however anxious they might be, were by no means ready to submit their rights of private judgement to the control of the new international instrument they had brought into being—the League of Nations—at least until that instrument should be tested and perfected. The League was indeed set in immediate operation; but the method adopted for dealing with the biggest questions was 'diplomacy by conference.'

It was a method, departing from the ordinary practice of diplomacy, initiated in the years immediately following the Napoleonic wars, when congresses had been summoned at short intervals; since then it had been employed on certain notable occasions, such as the Berlin Congress, the Hague Conferences and finally the Conference of Paris which drafted the Versailles treaty; and now during these critical years it was developed and repeatedly brought into full play. Conferences meant not that, as in the ordinary course, each government communicated with each other government through its ambassador at this or

that capital, but that the heads of the respective governments or their foreign ministers met together in conclave at San Remo or Lausanne or Locarno or elsewhere for the joint solution of the intricate problems of divergent interests which required to be dealt with, the governments being normally those of the great powers with whom the last word would necessarily lie.

The New States on the Baltic

THE new Baltic states that came into being at this time had been separated from Soviet Russia by the Treaty of Brest Litovsk at a moment when Germany conceived that they would as a matter of course become client states of her own, her troops being in fact in effective occupation. The independence of the Ukraine had been at the same time recognized by the Russians and the Central powers. The authority then acquired by Germany passed to the Allied powers with the Treaty of Versailles, and with it the responsibility not for enforcing but for procuring such a settlement between them—and Poland with them—as should command their common assent, while precluding the association of any of them with Germany. Between Poland and Russia there had been no settlement beyond the tsar's earlier promise of liberation for Poland; and the soviets had announced that they were not bound by any engagements entered upon by the fallen tsardom. Before long, Poland and Russia were at war, and there were also acute differences between Poland and Lithuania.

Finland was prompt to declare herself an independent republic. She had an immediate dispute with Sweden on the question of sovereignty over the Åland Islands, once in possession of Sweden. The matter was complicated, but the two states were persuaded to submit it to the League of Nations, and both loyally accepted its pronouncements thereon, which were embodied in a Convention signed in October, 1921. Notable in connexion therewith was the League's declaration that the general principle of self-determination did not confer upon every community the right to transfer

Afterwards

itself from one sovereign state to another ; the Aaland islanders having expressed a preference for the sovereignty of Sweden. A boundary dispute between Finland and Russia concerning the title of the former to an ice-free port on the White Sea was settled in Finland's favour in the peace treaty of Dorpat (October, 1920) between these two states, which till then had been technically in a 'state of war,' the Finnish government having much ado to repress in Finland the Bolshevik activities emanating from Russia.

Esthonia, too, had her initial difficulties, because her government, like all governments, was anti-Bolshevik, for the simple reason that everywhere the Bolshevik propaganda was directed against every government not itself Bolshevik. Consequently some of the anti-Bolshevik Russians tried to make Esthonia their own base for hostilities against the Bolshevik government of Russia, which was hardly more agreeable to Esthonia, because the anti-Bolshevik Russians avowedly did not

admit the right of the Baltic provinces to separate themselves from the legitimate Russian Empire. The collapse of the Russian monarchist efforts, however, at the end of 1919 led to the settlement of the Esthonian question to Esthonia's satisfaction by another Treaty of Dorpat in February, 1920, between Esthonia and the Russian Soviet government.

The experiences of Latvia were similar to those of her neighbour. Her independence was in like manner recognized by a Russian treaty in August, 1920 ; but the relations of these two little states with Russia must remain uneasy so long as she is, and they are not, Bolshevik. Even in conjunction it would be difficult for them to resist aggressive activities on the part of their big neighbour, though for defensive purposes the League of Nations stands behind them.

Between Lithuania, Poland and Russia the relations were complicated. The Russian government had accepted the separation from Russia of Lithuania, as



ZELIGOWSKI'S TROOPS ASSEMBLED IN VILNA AFTER ITS SEIZURE

The possession of Vilna, in which the Lithuanian provisional government was originally set up, became a subject of dispute between Lithuania, Poland and Russia. Ignoring the armistice procured by the League of Nations after its seizure by the Russians in 1920, the Polish general Zeligowski made his unauthorised march upon the town and effected its recapture. So successful was this coup d'état that Vilna later received European recognition as belonging to Poland.

Courtesy of Polish Press Bureau

distinct from Poland, at the Treaty of Brest Litovsk, with the corollary that Lithuania was intended, in effect, to become a German protectorate. In theory she would be an independent state, as she became when the Versailles treaty washed out the protectorate design. Before the war was over the Lithuanian provisional government was set up at Vilna, but on the German retirement the Russians again took forcible possession of Vilna in January, 1919. Meanwhile, the Poles had established their own provisional government. In their eyes Vilna was Polish, and in April they ejected the Bolsheviks from Vilna.

Settlement of the Vilna Imbrolio

LITHUANIA declined Poland's proposals for the reunion of Poland and Lithuania. The Poles, in spite of Lithuanian resentment, kept their grip on Vilna, which they had won back after Lithuania lost it to the Russians; but in 1920 the Russians renewed the attack and recovered Vilna. They did not stop at Vilna; they marched on Warsaw, the Polish capital, only to meet with very unexpected and altogether decisive defeat on the Vistula. The intervention of the League of Nations brought about an armistice; but a Polish general, on his own responsibility, ignored the armistice, marched on Vilna, seized it, and entirely refused to retire, though, at least officially, he was acting in defiance of his own government. The League, after divers experimental moves which proved ineffectual, left Poland and Lithuania to settle their claims by negotiations between themselves. But the Poles were in effective possession; a majority of the inhabitants of the Vilna district apparently preferred to be attached to Poland, and presently Europe recognized Vilna as being within the Polish sovereignty. Russia withdrew her own claims by the Treaty of Riga (March, 1921) with Poland.

Vilna as part of Poland links up Poland with Latvia, and so with the North Baltic states, but severs Lithuania from Russia. As part of Lithuania, it would be a Lithuanian gateway to Russia and would sever Poland from Latvia. Incidentally, Lithuania is an easier channel

of communication between Germany and Russia than Poland provides, since Lithuania has not the same historic causes as Poland for antipathy to Prussia. It was perhaps inevitable that western distrust of Germany and of Bolshevik Russia should foster, in France especially, the feeling that Poland must be, so to speak, a watch-dog and eustodian in the east.

Friction between Italy and Yugo-Slavia

IF the big five who had taken part in the war and taken on themselves the peace settlement, America had repudiated responsibility for European affairs, from which Japan also stood apart. Whatever differences there might be among the others and their fallen antagonists, armed conflict among them was out of the question. The public danger lay in the fact that the sense of responsibility weighed less heavily upon the minor states, whom it might be difficult to restrain from appealing to arms for the settlement of their disagreements—and bitter experience had shown that small fires may develop into great conflagrations. The east, therefore, with its great congeries of minor states was a constant source of anxiety; and between Yugo-Slavia—the new, expanded 'Greater Serbia'—and one of the great powers there were standing sources of friction; the territorial claims of Italy and Serbia on the Eastern Adriatic being incompatible.

These last, however, proved themselves capable of adjustment by the good sense of the Italian and Serbian governments. The most notable instance was the case of Fiume. France and England had made engagements with Italy on her entry into the war which they were prepared to keep, but they were not prepared to extend them at the expense of the unified South Slavs. They would not support her later-asserted claim to the port of Fiume, which it was extremely difficult to assign to any one nationality. Fiume, like Danzig, was to be an independent free port. The Italian government reluctantly acquiesced; not so the fervent Italian nationalist and poet d'Annunzio, who in Garibaldian fashion raised a troop of his own and seized Fiume. So popular,

Afterwards

however, was the action of the poet that it was not till the end of 1920 that the Italian government ventured to conclude with Yugo-Slavia the treaty of Rapallo to enforce d'Annunzio's withdrawal. Fiume was declared independent, but even then the position proved to be so impracticable that finally in 1924 Italy and Yugo-Slavia achieved a pact which gave Fiume itself to Italy but secured to Yugo-Slavia privileges in connexion with the port which met her most pressing requirements.

Hungary and the Balkan States

ANOTHER of the threatening storm centres in the near eastern lands was Hungary. The Magyars, always resentful of subordination to the Teuton in the empire under which they were combined, had always been no less insistent on the subordination of the Slav to the Magyar in Hungary. Of recent years they had enjoyed a status of equality with the Teuton while retaining domination over the Slav. Now, in the break-up of the empire, Teuton and Magyar were definitely separated, and so far as disentanglement was possible the Slavs had broken free from the domination of both. But further, the Slavs, while they had no fears of an Austrian attempt to recover ascendancy over them, felt no such security in regard to the Magyars. The same applied to the 'Roumanes' of Transylvania, now transferred to Rumania. Hungary had taken her stand with the Central powers, shared in their humiliation, and resented as an injustice when meted out to herself the treatment in which she had seen no injustice when meted out by herself to subject peoples.

Hungary, moreover, early became a source

of trouble, because in March, 1919, her government was seized by the communist or Bolshevik faction, which presented itself as a menace to Rumania, who in her turn had special grudges against Hungary, born in the recent war. Rumania invaded Hungary; conciliatory missions from the west failed. The communist government fell, but the Rumanian troops did not withdraw till they had exacted severe indemnities from Hungary. There followed some disastrous attempts to restore the Hapsburg monarchy in Hungary, which to Hungary's neighbours was as disturbing as the plunge into communism. It was not surprising, therefore, that Yugo-Slavia, Czecho-Slovakia and Rumania made a treaty of alliance among themselves, which united them in what was known as the 'Little Entente' for the defence of the common interests for which the western powers did not appear to offer



GABRIELE D'ANNUNZIO AT FIUME

Dissatisfied with the attitude of the Peace Conference towards the fate of Fiume, Gabriele d'Annunzio, the Italian poet and patriot, decided to seize the port. He raised a band of enthusiastic troops to assist him in the raid, and annexed Fiume on Italy's behalf in September, 1919. He is here seen addressing his legionaries.

Photo, E.N.A.

them adequate safeguards, interests which appeared to be threatened by Bolshevism on one side, possibly by Italy on the other side, and by Hungary at the centre. Nor is it surprising that from another point of view the safeguarding of those interests meant the depression of Hungary.

It would indeed be a sound general statement to say that conditions gave strong though by no means absolute security against the rekindling of war in the west, but that as regions lay farther and farther from the armies of the western powers the security for peace diminished. The great powers, including Germany, would leave no stone unturned to avoid collision among themselves; but necessarily it was to this end that their attention and energies were most continuously directed, and their control eastwards was comparatively sporadic, and spasmodic, in proportion as their alertness to the course of events waxed and waned. It was in, and in connexion with, what had been the Turkish Empire that the menace of a serious conflagration suddenly made itself most acutely felt.

Troubles of the Turkish Empire

THE Turkish Empire had matched the Austrian Empire in the completeness of its collapse. The sultan, for four centuries khalif and official head of the Sunni Mahomedan world, though not so recognized in the Shiah regions, still officially reigned at Constantinople, but his temporal dominion in Europe was reduced to the city itself and outside Europe was woefully shrunken. Egypt had gone, Syria and Palestine had gone, Arabia had gone, Irak (the revived name for Mesopotamia) had gone, Armenia had gone. How those populations, formerly under Turkish sovereignty, wholly without the experience or even the remote tradition of self-government other than the irresistible authority of a local despot, were to be governed now was a sufficiently difficult problem for settlement by the powers who had broken down the military tyranny of the Turk; and how what remained of Turkey was to be made to serve instead of disturbing the welfare of the rest of the

world was another; but Turkey's own revival was the last thing to be expected.

The sultan's government was permitted to remain in Constantinople mainly for two reasons—the difficulty of placing anyone else in possession (except the Americans, who firmly declined), and the reluctance to inflict on the Khalifate a humiliation which might have a disastrous repercussion upon the Mahomedan world. Meanwhile a considerable area about the straits was demilitarised and Allied troops under British command occupied Constantinople. The responsibility for Turkey's final collapse had lain with the Young Turks and their leader Enver. In his place Mustapha Kemal, who had displayed marked qualities both of soldiership and statesmanship, was sent to the Turkish headquarters in Anatolia.

Kemal's Reorganization at Angora

WHILE the government at Constantinople was negotiating the Treaty of Sèvres, Mustapha Kemal, with very different views, was organizing a government in Anatolia, while Enver vanished into more obscure regions in the east, and Greece, almost unresisted, was by force of arms making good her classical but dubious claims to Smyrna and other coastal districts in Asia Minor. Mustapha called a congress at Sivas and formulated the policy embodied in what came to be called the National Pact, which Constantinople ignored. Mustapha consequently ignored Constantinople and set up a national government at Angora in 1920. The Angora government, repudiating the Sèvres peace terms, failed to extract the concessions it demanded from the Conference of London in 1921; while the Greek forces were continuing to advance, apparently with the intention of sharing the Turkish Black Sea provinces with Armenia, till they were checked a long way from their base by Angora troops on the Sakaria.

The Constantinople government was a phantom; that of Angora was a reality which commanded the loyalty of the Turks in Asia and was inspired by a leader of genius. It had ignored but not officially repudiated Constantinople. It struck a treaty of its own with the Russian Soviet

Afterwards

government. The French and British governments had announced their neutrality in the Graeco-Turkish war, in which the Greeks were conspicuously the aggressors. Without departing from neutrality, but recognizing the facts of the situation, France virtually recognized the Angora government by concluding with it a convention regarding the Turco-Syrian boundaries in October, 1921. Attempted mediation by the powers between the belligerents failed; when the Greeks in the following July proposed to occupy Constantinople the powers, whose troops were in actual occupation, refused to admit them.

Greeks Defeated in Asia Minor

AND then in August Mustapha Kemal, who had bided his time, shattered the Greek army, whose retreat soon became an unequivocal rout, while the Turkish army was engaged partly in keeping them on the run, partly in marching towards the straits, on the way to Thrace. The very considerable Greek population in the districts which the Turks were now over-running fled headlong to the coast, where it was taken off by neutral as well as by Greek ships. King Constantine, who had been restored, abdicated for the second time, in favour of his son, George II.

If the Angora troops approaching the straits entered the demilitarised zones on the east of the straits, that would be an act of war. Would the Allies resist it? If they did not, their acquiescence might have on the Mahomedan world an effect which Great Britain was not disposed to risk. With or without support from the Allies she was resolved to maintain the freedom of the zones and the straits. France and Italy declined to support her, and withdrew their troops. The strained relations between the Allies were relieved by their agreement on a joint note inviting Greece and Turkey to a peace conference, and the situation was saved by the combined tact and energy of the British commander, General Harington, and Mustapha Kemal's wisdom and controlling influence over forces flushed with victory and far outnumbering the British at the moment. Some Turkish troops actually

crossed the boundary, but were withdrawn in time to avoid a collision. There was no act of war. Mustapha held a conference with the British commander, and agreed to open negotiations with the Greeks. The armistice was signed on October 11.

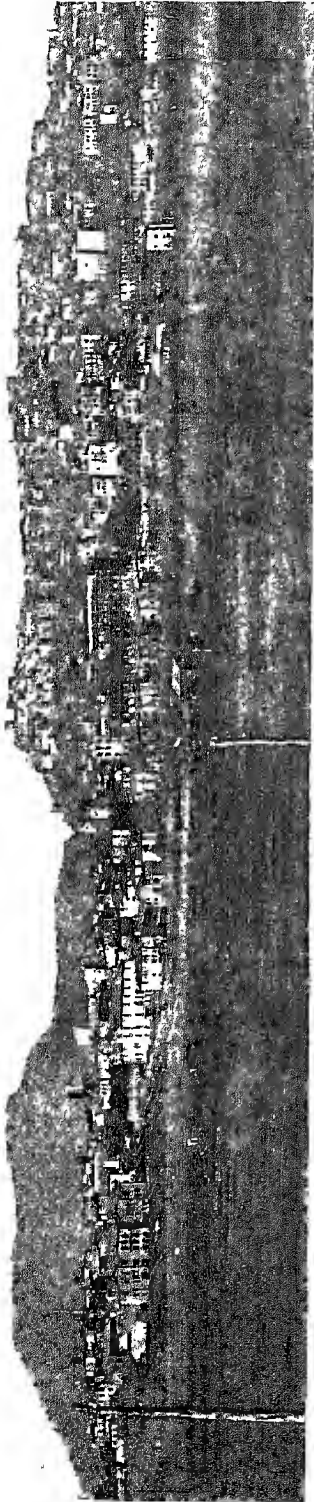
Three weeks later the Angora government proclaimed the abolition of the Sultanate; the sultan, who had never been more than a puppet, fled to security on a British ship, and Turkey became a republic. A new khalif—not sultan—was appointed, but a year later (February, 1924) the government abolished the Khalifate itself—an event which did not have upon Mahomedans at large the disturbing effect anticipated; since it could not be attributed to Christian hostility to Islam. The final peace terms, taking the place of the still-born Treaty of Sèvres, were arranged at the Conference of Lausanne (1922-23), which was followed by the abdication of George II—the



MUSTAPHA KEMAL PASHA

Mustapha Kemal Pasha, born 1882, set up the Angora government in 1920 and became president of the Turkish republic in 1923. His Westernising policy is brought out by this photograph of him dancing with his adopted daughter at the ball given to celebrate her marriage.

Photo, General Photographic Agency



ANGORA : THE ANATOLIAN TOWN THAT REPLACED CONSTANTINOPLE AS CAPITAL OF TURKEY

The rapid growth of Angora since it became the Turkish capital in 1923 was promoted by Mustapha Kemal, who turned a backward country town into a modern city. New buildings and roads replace former unhealthy quarters and narrow streets. The old town, still surrounded by its medieval wall is seen on the hill at the back, while the new town is spread along the valley below.

Photo, E. N. A.

Greek monarchy could not survive its disastrous failure—and Greece became one more among the new republics.

The Treaty of Lausanne (July, 1923) was the last in the series of treaties, beginning with that of Versailles, establishing peace between the group of victorious powers and the several defeated powers in the Great War, the relations with Turkey having hitherto been controlled by the armistice, not by a definitive peace. It gave to Turkey substantially better terms than she could have obtained under the Treaty of Sèvres, mainly at the expense of Greece, whose aggressive activity had brought that fate upon her. A substantial portion of Thrace was given back to what may be called the new Turkey, as well as Adrianople, the bulwark of Constantinople. The delimitation of the Turkey-Irak boundary was left to the Turks and the British as 'mandatories' for Irak, with the League of Nations as referee.

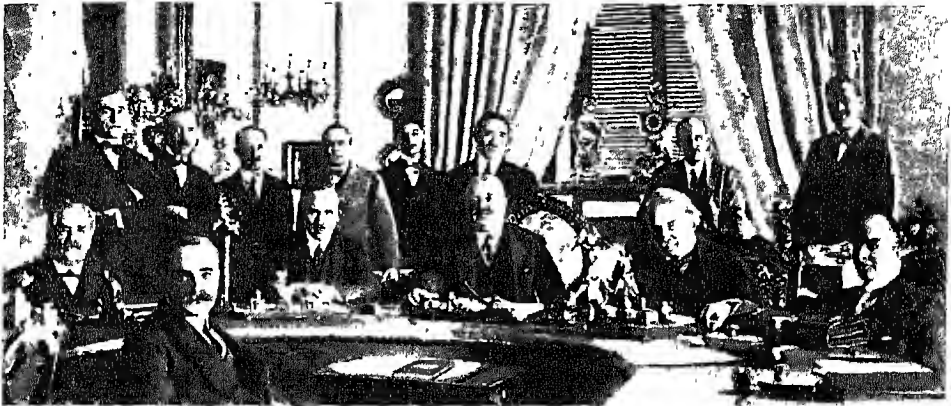
Shortcomings of the Settlement

IT will have been clear enough in the course of this Chronicle that the post-war settlement lacked one very vital desideratum. It was not, because it could not be, a settlement by consent in which the interests of all parties concerned were judicially adjusted and all were treated on an equality. It was a case in which one party was in a position to dictate its own terms which the other could only accept, or rather submit to, under protest, nursing its own conviction that they were dictated not by justice, but by vindictiveness, and that it was morally entitled to evade them to the best of its power. Security for the victors against renewed aggression by the vanquished, even in a remote future, was for them the first essential, meaning that renewed aggression must be placed—permanently if possible—out of the power of the vanquished. In the eyes of the victors the vanquished had been guilty of gratuitous and criminal aggression developed by criminal methods which, apart from security, deserved salutary punishment which the victors were entitled to exact. The defeated powers had inflicted damage for which the victors claimed the fullest compensation.

Afterwards

But it was also inevitable that the victors themselves should not see eye to eye as to the methods by which security should be obtained, the extent and the distribution of the compensations available, and the limits beyond which the depression of the vanquished would react to the detriment of the victors themselves. The fact that ultimate security against war could only be achieved by the substitution of good will and mutual confidence for traditional

ments at Paris. The Versailles treaty itself was the work of the Paris Conference which formally terminated in January, 1920, when the ratifications of the treaty were completed. A fresh conference met in London in February, which dealt less drastically than had been expected with the question of the 'war criminals,' since the chief of them was on neutral Dutch territory where he could not be seized and whence the Dutch government



'DIPLOMACY BY CONFERENCE' AT SAN REMO IN 1920

After the Great War the Allied leaders adopted the conference system as the best method of handling the numerous questions demanding settlement. This photograph shows members of the supreme council assembled at the Villa Devachan, where the San Remo Conference met in April 1920, its main concern being German disarmament. The French premier, Millerand, is seated on the extreme left; Nitti, Italian premier, is in the centre, while Lloyd George and Lord Curzon are on the right.

Floto, Topical Press Agency.

hostility and suspicion was indeed recognized by the creation of the League of Nations; but that was admittedly a tentative experiment which might have incalculably beneficial results but might prove entirely futile. Time alone would show. Meanwhile, an atmosphere of good will was not one of the realities of the situation; and the fundamental necessity was the agreed action of the Allies, whose unanimous will no one else could resist. Hence, the method of 'diplomacy by conference' was substituted for the traditional ambassadorial diplomacy as at once more rapid in action and keeping the Allied governments in closer touch with each other.

The execution of the treaty terms was carried out under the supervision of the Conference of Ambassadors — the accredited agents of the respective govern-

declined imperturbably to eject him. It gave up the attempt to settle the question of Fiume, which it left to Italy and Yugo-Slavia, and it decided that the Turk should be permitted to remain in Constantinople. A third conference met in April at San Remo. It agreed upon the 'internationalisation' of the Dardanelles and the Bosphorus, left Armenia to carry on as best it might, and was chiefly occupied with the thorny question of German disarmament.

German troops had been marched into the Ruhr district, officially to suppress communistic disturbances there. This looked very much like a move of the German military party; it disclosed the fact that the Germans still had under arms a much larger number of regular troops than should have been the case; and the entry of German troops at all

into the demilitarised area was a breach of the peace terms. The French at once took alarm, and replied by occupying Frankfort and Darmstadt. In doing so on her own responsibility France was within her technical rights, though in some quarters her action was felt to be needlessly aggressive, while in others it seemed to be more than warranted, not only by Germany's failure to reduce her army, but by her demands that the period allowed for her disarmament should be extended and the extent of the disarmament itself reduced. A reasonable harmony, however, was restored, and the conference rejected the German demands. The German troops were withdrawn, and the French followed suit. But the Germans were also for the first time invited to meet the Allies in conference for the better execution of the peace terms. Before this conference met at Spa, in July, there were several minor conferences, mainly for the adjustment of French and British points of view, and to consider the financial position in Germany.

Conferences at Spa, London and Genoa

THE aim of the Germans at Spa was to obtain very substantial remissions of their treaty indebtedness on the ground that it was not practically possible to make the stipulated payments. They failed to satisfy the Allies of the genuineness of their plea, though the latter repudiated any intention of victimising them. The chasm, however, between the views presented by the Germans and those maintained by the Allies was not appreciably diminished.

Nor did the situation become more promising with the London Conference of February, 1921. The Germans declared that the scheme of reparation payment submitted by the Allies was impossible of fulfilment, and propounded a counter scheme so inadequate (from the Allied point of view) that its uncompromising rejection was accompanied by the threat of the application of 'sanctions' if the Germans maintained what was regarded as a wilful refusal to carry out their treaty obligations. The sanctions were applied; and, by another London conference of

the Allies alone, the Germans were given a week to accept somewhat modified terms. A new but far from stable German government submitted. But it soon became obvious that they would again default. A Paris conference in August failed entirely to agree on the settlement of another problem, the partition of Upper Silesia between Germany and Poland, which was finally handed over to the League of Nations.

A conference at Cannes early in 1922 was abortive and was followed by a conference at Genoa, in April, which was productive of more discord than harmony. For so far as France took part in it, it was only to emphasise the fact that her own policy was fixed; Germany was, in effect, declaring herself bankrupt; Bolshevik delegates had been invited to attend, and their contributions to debate only served to intensify the distrust with which they were regarded, and the general sense of the utter impracticability of any co-operation with them; and the German delegates took the opportunity to strike with them at Rapallo a treaty of 'recognition and commerce' which the Allies could only interpret as a deliberate defiance, while the French premier—in France, not at Genoa—virtually announced the intention of taking such measures as were necessary to the due fulfilment of the terms of the Treaty of Versailles, preferably with the co-operation of the other powers; but, if that were not forthcoming, without it. In spite of the astonishing attitude of the Russian delegates, Great Britain and Italy endeavoured to procure a convention with Russia, which should at least pave the way for admitting her to the European comity, but failed, since neither France nor Belgium, nor finally the Soviet government itself, would adopt it.

The Need for Economic Revival

THE reign of good will seemed farther off than ever, and the conference powers even took the precaution of making a temporary pact of non-aggression among themselves, Germany and Russia included. But one point of actually hopeful omen was emerging: the powers were

Afterwards

beginning to realize that the sickness of Europe could not be cured until her economic conditions were restored on a healthy basis. Economic revival was beginning to be recognized not as a minor but as a primary necessity.

Meanwhile, however, another separate conference had been at work at Washington, with much more progressive effect; a conference called not by the treaty powers, but by the United States of America, who took at most a watching part in the European conferences. Europe was indeed concerning itself with disarmament, but in the imagination of Europe that was mainly visualised as the compulsory disarmament of Germany. To America, as to the League of Nations, it meant the discovery of a basis for the persistent universal agreed reduction of armaments to what might be called a police level—the standard of controlled force necessary to the guardianship of the public peace. To a conference with this object, the limitation of armaments, in view, America invited the four treaty powers, Great Britain, France, Italy and Japan, to which were added China and the three minor European states which were concerned with Pacific and Far Eastern questions. The conference met on Armistice day, 1921, concluding its sessions on February 6 following.

Washington Conference & 'Four Power Treaty'

THE five great powers dealt with the problem of naval disarmament, since it became immediately evident that military disarmament could not as yet be profitably discussed; the nine with the other group of questions which touched them all. The German navy having ceased to exist, only the five were directly touched by the naval question. America proposed that, subject to equivalent action on the part of Britain and Japan, she should abandon her existing programme of capital-ship construction, and scrap a number of existing battleships, the powers agreeing to limitations on future naval construction. Here agreement was comparatively easy; but on the question of 'auxiliary' craft it was soon found that no common term was possible, the special needs of the several states being

controlled by diverse and divergent conditions. The total abolition of submarines was mooted by Great Britain, but found no favour with those of the powers which regarded them as essential to their own defence, and the conference contented itself with denouncing their use as commerce destroyers, a denunciation which from the British point of view appeared entirely impossible to enforce.

The agreement as to capital ships, however, was a very material advance, as also was the 'Four Power Treaty' between America, France, Great Britain and Japan, which took the place of the standing Anglo-Japanese treaty of alliance, in which America detected a possibility of developments hostile to herself, since there had been considerable friction between her and Japan in the past. With no possibility of German or Russian fleet activities in the Pacific, the continuance of the standing treaty was viewed with suspicion; but when it was translated into the Four Power Treaty it became an instrument of common accord. The new treaty was not technically the work of the Washington conference, but was accessory to it. Similarly the conference conduced to but did not in itself effect a treaty between Japan and China, which was made at the same time, regarding the vexed question of Shantung, from which the Germans had been expelled by the Japanese during the war, while China claimed its reversion to herself. The conciliatory action of Japan in this matter was capped by the British restitution of Weihaiwei to China, and the resignation by other powers of sundry concessions that had been made to them.

Lausanne and the Ruhr Invasion

IT was not long after the dispersal of the Genoa conference that Greece suffered her crushing defeat at the hands of Mustafa Kemal. It has already been told how the advance of the Turks led up to the conference of Lausanne, of which the main concern was the settlement of the Turkish question, and the other main feature was the avoidance of the breach which was threatening between the Western powers. It may be noted that at this moment the British coalition ministry fell and Lloyd

Chronicle XXXIII. 1918=1929

George, who was not on the most sympathetic terms with the French premier, was succeeded by the Unionist leader Bonar Law, while the coalition foreign minister, Lord Curzon, remained in office, and almost simultaneously Mussolini became Italian prime minister.



The Lausanne conference was prolonged ; it did not actually conclude until after mid-summer in 1923, and there were critical moments during its course ; but the most anxious moments of that anxious year were not concerned with the Lausanne negotiations ; for it opened with the declaration by the ' Reparation Commission,' which was in charge of the matter, that Germany was in wilful default in the discharge of the payments due from her, and more particularly in the delivery of coal. Two days later, on January 11, French troops in concert with Belgium marched into the Ruhr district and occupied it ; as, at least in their own view, which it was more than difficult to controvert, they were entitled to do in the circumstances under the Versailles treaty. But, with the exception of Belgium, the action of France was without support from her allies. Their active opposition was out of the question.

The German government did not—probably in the state of German public opinion it dared not—acquiesce. Since active resistance was impossible, there was only one way left—passive resistance. The coal deliveries ceased, work



MEMBERS OF LLOYD GEORGE'S COALITION MINISTRY

The fine war-time service rendered to the British nation by David Lloyd George (lower left) secured him the premiership in 1916. His coalition ministry was returned in 1918 and held office until his resignation in October, 1922. Top : Lord Curzon (1859-1925) succeeded Balfour as foreign secretary in 1919, resigning in 1924. Andrew Bonar Law (1858-1923), who for some time shared the coalition leadership with Lloyd George, later helped to destroy it, and succeeded as Unionist premier, 1922-23.

Photos, Russell, Van'dyk and Elliott & Fry



LEADERS OF THE CONSERVATIVE AND LABOUR PARTIES IN BRITAIN

Stanley Baldwin, born in 1867, succeeded Bonar Law as Conservative premier in May, 1923, and by his visit to Poincaré, the French premier, in September of that year, relieved the strained relations then existing between Britain and France. In January, 1924, James Ramsay MacDonald (left) formed a ministry and held office until October, when Baldwin again secured a majority. MacDonald, born in 1866, was secretary of the Labour Party 1900-11, and its leader 1911-14.

Photos, Lafiville

ceased, all payments were refused. But it was on the working population of the Ruhr and in Germany at large that the burden of the consequent suffering fell. France, relatively, was merely inconvenienced. In Germany the mark dropped to a fabulously low level. British public opinion generally, but by no means universally, disapproved if it did not openly resent the French action. The relations between the two governments, without whose co-operation the restoration of European stability was unattainable, were strained almost to breaking-point—but not quite.

Matters in Germany went from bad to worse. In May she made proposals that were regarded as too futile to be seriously discussed. The French government would not contemplate the evacuation of the Ruhr until the passive resistance ceased. For that reason it rejected a second German offer in July. British 'notes' to France were met by polite but uncompromising replies—including rejection of the suggestion, which looked like a reflection upon the Reparation Commission, that

Germany's capacity to pay should be referred to a commission of impartial experts. It appeared possible that in the impasse which had been reached the British government was contemplating independent action. Germany was only encouraged to maintain the passive resistance by the prospect of a complete breach between France and England—but for that England herself was not prepared. If she had contemplated independent action, she abstained from taking it. The sword remained suspended, even if it was by no more than a hair.

The strain of the fatal passive resistance policy upon Germany was already more than she could bear. She was threatened not only with complete economic ruin, but with political disintegration by a separatist movement in the Rhineland, mainly traceable to the French occupation of the Ruhr and the revolutionary fever born of hunger; a movement not for union with France, but for an independent republic. France remained immovable. But Germany had at last acquired a ministry whose chiefs had the courage

to face facts, the insight and the patriotic faith to deal with them unflinchingly. At the end of September the new government withdrew its predecessor's passive-resistance decrees—and the German army instead of breaking into a militarist revolt stood loyally by the government.

Only a few days before, Baldwin, who had succeeded Bonar Law as head of the British government, had a meeting with Poincaré which, without affecting the latter's firmness, did much to relieve the tension. The action of the German government did still more, for France had carried her fundamental point that the cessation of passive resistance must precede any relaxation of the French grip. In November the Reparation Commission itself—with a French chairman—appointed two independent expert commissions of inquiry, the precise point on which the British government had been most urgent, of which the issue was the 'Dawes report' (March, 1924). The French remained in the Ruhr, but with the passing of resistance their activities there became less obtrusive, and the new British premier, MacDonald, approved himself a most judicious diplomatist. Poincaré was succeeded by the conciliatory Herriot.

Recommendations of the Dawes Report

A LONDON conference was opened in July, which was attended by American delegates. The recommendations of the Dawes report were substantially approved, and greatly strengthened by the unexpected discovery that America was ready to co-operate actively by sending delegates to the Reparation Commission, whereby the prospect of raising a loan to help Germany on to her feet would be immensely improved. The vital advance was in the recognition of the economic fact that Germany would continue to default, whether wilfully or not, until she was able as well as willing to make the necessary effort. Till that was recognized she would be neither able nor willing. The hesitation of France to adopt and of Germany to accept the offer which was formulated on the basis of the Dawes report was overcome; and the conference concluded the agreement, which was not in the form

of a treaty, under which the Dawes scheme was brought into operation. The conference had taken the first real step towards reconstruction.

The adoption, however, of the Dawes report was not merely a material step towards financial reconstruction; it was the first significant omen of an improving atmosphere, of diminishing hostility and suspicion, of relaxing antagonisms. References to 'war guilt' had hitherto been an unfailing irritant; at the London conference they had been tactfully dispensed with. It was much to the credit of the Allies that they had persuaded themselves—without withdrawing their claims—to moderate the form of their demands and to add thereto offers of assistance; it was no less to Germany's credit, and particularly to that of the small group of statesmen, headed by the president, Ebert, who were piloting her through very difficult waters, that she accepted the offer in a corresponding spirit and played up to it.

Beginning of German Rehabilitation

THE armed occupation of the Rhine districts was due, under the Versailles treaty, to be withdrawn by degrees, beginning with the evacuation of Cologne in January, 1925, but only if Germany had duly discharged her obligations by that date; she had not done so, and the occupation continued. The French evacuation of the Ruhr was not completed until after midsummer; but Germany had dropped her attitude of sullen inertia, and was seriously setting about her own economic revival and showing a marked disposition to endeavour at least to carry out her treaty obligations instead of evading them. Sundry efforts of the League of Nations to evolve a treaty giving a real security against the appeal to arms in the future had broken down or were breaking down, when in February, 1925, Germany herself submitted a tentative proposal to the French government, the essence of which was a security pact guaranteeing the present territorial status on the Rhine, the result of her own defeat.

It was perhaps as well that this notable effort did not attract too much of the public attention, which is apt to produce

Afterwards

heated and recriminating controversy in the press, while the responsible ministers of France, Great Britain and other countries were exchanging views on the various knotty points arising from the suggestion, the practical possibility or impossibility of security pacts not only for the Rhineland but in other regions where boundary questions were international sources of friction; matters upon which there were many divergences, which did not, however, wreck the keen desire for concord.

Work of the Conference at Locarno

THE outcome was the momentous Conference of Locarno which met in October; momentous not so much for what it actually accomplished as because it marked and emphasised the attainment of a new plane of discussion in which not antagonisms but community of interests held the first place. The value of the Locarno pact was indeed very great; but it was exceeded by that of the new 'Locarno spirit.' The past could not be blotted out, but it could be left behind. To revive old controversies on the rights and wrongs of which men had long made up their minds once for all could benefit no one; as subjects of discussion they were dead and buried, and their ghosts must not be allowed to walk. The ghosts were not as a matter of fact completely laid—they reappear when tempers become provocative; but they were quiescent at Locarno.

It was the first time that Germany had come into conference unequivocally on an equal footing with her former foes and as a promoter of peace—actually the prime promoter of the conference itself, since it was clearly traceable to her initiative in the preceding February.

The conference met on October 3; its invaluable work was completed in a fortnight. The work was done in an atmosphere of unprecedented good will, not penetrated by controversial comment from irresponsible quarters, and facilitated by the freedom from formalities in its procedure. The agreements arrived at, when ratified by the respective governments, were embodied in the Treaties of London, commonly referred to as the 'Locarno

Pact,' in December. All the conference powers guaranteed the French-German-Belgian frontiers and the conditions applied to the demilitarised zone under the Versailles treaty. Germany and France and Germany and Belgium pledged themselves not to resort to war against each other except in defence against an act of flagrant aggression; to refer disputes, where they could not agree between themselves, to some form of judicial decision, and at once to report any violation of the terms to the League of Nations, all the signatory powers pledging immediate support to the aggrieved party if the League confirmed the charge.

Besides accessory guarantees, there were added arbitration conventions between Germany on the one hand and France and Belgium severally on the other. A more elaborate German-Polish and German-Czecho-Slovakian arbitration agreement left open the possibility of future frontier modifications by mutual agreement between those powers. Two complementary treaties were made, mutually guaranteeing frontiers, by France with Poland and Czecho-Slovakia, to which the other powers were not parties, since Great Britain and Italy, while ready to give guarantees in the west, could not extend that readiness to the east. But the vital fact remained. Germany and her former foes had at last persuaded themselves at least to shake hands.

Germany Admitted to League of Nations

THE note of Locarno was the note of reconciliation; confirmed next year by the termination of Germany's semi-outlawry, an outlawry which had been at once an inevitable corollary of her defeat in the war and an insuperable obstacle to European recuperation and reconstruction. It ended with her admission to the League of Nations in 1926, with the status of a great power therein. She had accepted the conditions which could convert her into a colleague instead of an antagonist. We need not here deal with the story and the effects of that change—they belong to Chapter 183, as do the continued abstention of the United States from joining the League, and the persistent hostility of Soviet Russia to everything for which the

League stands. The fundamental point of the change that had taken place was not that reconciliation was complete and suspicion and distrust had vanished, for they still lurked beneath the surface and still occasionally broke loose, but that from this time the note of reconciliation was definitely predominant.

Some reference, however, must here be made to minor episodes illustrative of some of the difficulties of preserving peace and evolving goodwill in a Europe whose nerves had been torn to rags by the strain and the sufferings of the war. Such was the unhappy incident of the murder of some Italian officers upon Greek soil in August, 1923, the consequent high-handed seizure of Corfu by the Italian government, and the compromise under which the League abstained from insistence on its own authority to deal with the matter when Italy chose to acknowledge in its place that of the Council of Ambassadors, whose award probably did not differ substantially from that which would have been made by the League. Such, again, was the sudden menace of armed collision



ALEXANDER OF YUGO-SLAVIA

Alexander, second son of Peter of Serbia, did notable service in the Balkan wars of 1912-13. Proclaimed first king of Yugo-Slavia in 1921, his reply to divisional discord was the establishment in 1929 of a royal dictatorship.

Photo, Vandyk

between Greece and Bulgaria in October, 1925, which was stopped by the instant intervention of the League and the self-restraint of the two governments concerned in the face of intense popular excitement.



PRIMO DE RIVERA

Under the leadership of the Spanish soldier and statesman Miguel Primo de Rivera, born in 1870, his country's constitution was suspended in 1923. In 1925 he became premier in the civilian administration which he introduced

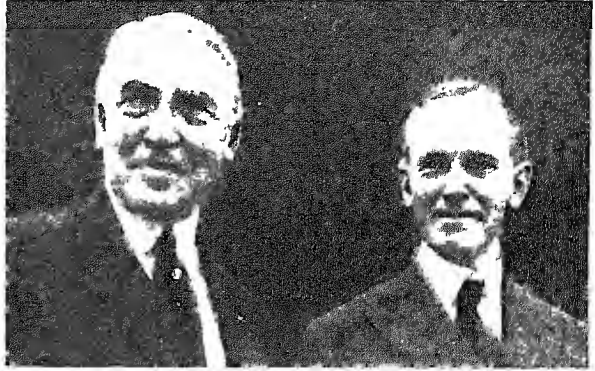
Photo, Kaulak, Madrid (E.N.A.)

THE aim of the statesmen of the Versailles treaty was a settlement which should be in fact a reversal of all that was most dear to the hearts of the statesmen of the Vienna settlement of 1815. They had shaped the map of Europe on the basis of nationalism, regardless of dynastic claims; only one monarchy, the Bulgarian, survived where the defeated powers had ruled; the new states were all republics save for Yugo-Slavia, which was new only in the sense that the old Serbian kingdom now embraced populations which had before been denied union with it—and Yugo-Slavia was a constitutional monarchy with parliamentary institutions. The American president had declared that the peace was to make the world safe for democracy. In short, the settlement

Afterwards

was in theory the triumph of what had been known of old as 'the Revolution.'

Nevertheless, neither nationalist groupings nor democratic political systems proved to be simple propositions; the first, because within each of the larger groups were minority groups of diverse nationality which did not immediately amalgamate; the second, because democracy presupposes a certain standard of educated intelligence, and of what may be called the co-operative spirit. Democracy found its enemy not as of yore in hereditary privilege, but in communism. In general, democracy (including



TWO PRESIDENTS OF THE UNITED STATES

Neither of President Wilson's successors, Warren Gamaliel Harding (left), nor Calvin Coolidge (right), carried on his policy of assuming American leadership in European affairs. Harding became the Republican president in 1920, and Coolidge, who was his vice-president, succeeded him on his death in 1923.

Photo, Topi of Press Agency



MUSSOLINI IN FASCIST COSTUME

The organizing genius of Benito Mussolini, born of humble parents in Romagna province in 1883, developed the Italian Fascist movement as a weapon against Bolshevism. Becoming premier in 1922, he undertook his country's reconstruction.

Ministry of Foreign Affairs, Rome; photo, Henry Manuel

'constitutionalism') was strong enough to cope with communism; but in Russia communism had democracy by the throat; while it is a somewhat ironic commentary on the whole situation that at the end of 1928 Spain, Italy, Yugo-Slavia and Turkey had in fact passed under the control of unqualified autocrats, and to these may be added Albania.

There was indeed nothing surprising in the fact that the president of the Turkish republic gained such a personal ascendancy that he became an autocrat under republican forms, except that his power arrived without the normal accompaniments of bloodshed, almost as a thing of course. It was equally natural that Albania, which had never in the whole course of her history submitted to any rule save that of some chief endowed with an irresistible personality, such as Skanderbeg, acquiesced in the assumption of the crown by a president who would seem to possess the traditional qualifications. Rivalries and jealousies between the newly united divisions of Yugo-Slavia drove its king to a coup d'état establishing his own autocracy as the only effective means to the enforcement of law and order. For Turks, Serbs and Albanians the 'strong man' had always been necessary to political salvation.

The two Latin kingdoms, however, having very different historic antecedents,



ABD EL-KRIM AFTER HIS SURRENDER

The strife which broke out in 1925 in Morocco between the forces of the rebellious tribal leader Abd el-Krim and the French was brought to a sudden conclusion by the surrender of the former in May, 1926. He is seen (fourth from the left) in this group with his attendants and some French officers.

Photo, Chi square Flavers

present a different development. Spain, for considerably more than a century, had been struggling to build up a strong government on constitutional lines, for the most part under painfully adverse conditions. The reigning king, his mother and his father, had been more successful than their predecessors, but the governing power was still inefficient; and it was the sense of inefficiency, and perhaps the example that was being set by Italy, that brought about the sudden establishment of a dictatorship still under the crown, in 1923, and the suspension of constitutional rule. This, however, was not a departure from precedent in the theory of government, whatever the developments in store may be; emergencies have produced dictatorships as their only available immediate solution, from time immemorial—successfully or otherwise according to the abilities of the dictator.

Italy, on the other hand, made a new departure. Parliamentary government had brought her neither political nor economic stability, when at the end of 1922 Signor Mussolini became her prime minister and began to lay the foundations of the Fascist state, hardly veiled by the retention of the hereditary monarchy.

The system is one which would have rejoiced the heart of Machiavelli. It is the negation of what the 'Nordic' peoples understand by 'liberty.' The people, being a congeries of factions, is incapable of directing an efficient government; for its own good it must have an efficient government, and one that is irresistible and has absolutely unlimited power and right of control; as against the government, the people have no rights. The state is incorporated in the government, and the government is incarnate in the person of its chief. The law as laid down by the government is supreme; only the government itself is above the law, and of it no adverse

criticism may be tolerated. That would seem to be the theory of Fascism; and its efficiency in the hands of the Duce is so convincing that it is easy to overlook the fact that it is bound up with the personality of the Duce himself.

THE League, the economic problems of Europe after the war, the story of Bolshevik Russia and its influences upon Europe, are all essential parts of the history of the post-war decade, but must find only passing reference in this Chronicle because they are the subjects of detailed study in Chapters 182, 183 and 184. But Europe, to which, with Turkey, our attention has hitherto been confined, is not the only field which has to pass under review, While America—in the sense of the United States—interested herself actively in European and extra-European affairs, she rejected the rôle of leader laid down for her by President Wilson, and under his successors, Presidents Harding and Coolidge, declined to share the direct responsibilities of the European powers; an attitude regretted by the latter, and not easily intelligible to the mind of western Europe, exciting at times adverse comment which was not always according to knowledge.

Afterwards

IN Africa the most obvious product of the war was the elimination of German influences, with the substitution of the influence of one or another European power in the areas where they had predominated. But in relation to Mahomedan Africa, Africa from Egypt to Morocco, it had earlier become evident that German influences could not be established without a sharp conflict with France or Spain or both, if not with Great Britain as well; while on the remaining section of the Mediterranean littoral her 'peaceful penetration' had been checked by Italy's declaration of the Tripoli protectorate. Subject to a reasonable security for her own commercial interests, and a free hand in Egypt, England regarded the expansion of the three Latin powers with a friendly eye, and their relations with each other had shown themselves capable of amicable adjustment.

The African populations, however, were not equally amenable. In Morocco the inland tribes, led by Abd el-Krim, were so successful in their resistance to the Spanish efforts at domination that in 1925 they took occasion to challenge the French also, since the latter were encroaching on what they regarded as their own preserves; and it was only at the cost of severe campaigning that the two European powers were able in combination to compel the submission of the Moroccan champion in 1926. Of the three Latin powers, France was the most successful both in conciliating the tribesmen and in developing the commercial possibilities of the area over which she extended her administrative sway; but the immemorial tribal organization is not of a kind to acquiesce readily in European conceptions of government, or indeed in any alien domination.

In those portions of western Asia where the authority of western 'mandatory powers' took the place of the old

Turkish regime, the 'autonomy' which materialised was extremely tenuous. The first king of the Hejaz was displaced by the chief of the puritan Wahabi sect; his son was made 'king' of Irak, but such authority as he had was derived entirely from the British; Syria resented the French regime, which was of a more military character than that of the British in the neighbouring areas. Palestine was judiciously organized largely for the benefit of the Jews, but in such a manner as to develop the prosperity of the non-Jewish populations. In fact, in all these areas the general security was much greater than before, but the new wine of misunderstood Western ideas was fermenting in old bottles. Tact and sympathy were very necessary to insure against disaster.

In fact, the secular problem of the irreconcilable divergences between Orientalism and Occidentalism had come to life again. In Japan the antagonism was least in evidence, because her Orientalism was a thing apart, and she had started on the line of an essentially critical but wholly practical assimilation not of Westernism but of selected Western materials. Something of the kind was being attempted



THE LATIN ALPHABET COMES TO TURKEY

Kemal Pasha's determination to abolish the old Arabic signs in Turkey led to the declaration, on December 1, 1928, that the Latin alphabet should be compulsory. In Constantinople the governor compelled a mobilisation of all between the ages of fourteen and forty to learn the new Latinised Turkish.



RIZA SHAH OF PERSIA

Risen from the ranks of the Persian army, Riza Khan engineered the deposition of Persia's reigning ruler, and, being elected shah, crowned himself at Teheran in April, 1926, with a crown specially made for the occasion.

Photo, Pacific & Atlantic, Ltd

in Turkey under the inspiration of its president and presiding genius Mustapha Kemal, though the problem had for him the additional complication of Islam, and of resistance to Occidental domination with which Japan was not threatened. Turkey's future was trammelled, as Japan's was not, by her past. But all over Asia—during more than the last half-century, by political and commercial penetration more than by military conquest—the tentacles of European domination had been making themselves increasingly felt, while at the same time Asia was increasingly conscious that it was only by learning from Europe how to do it that she could release herself from the European pressure. Now Asia was much disposed to turn to Bolshevik Russia, still more Oriental than Western at bottom,

for the teachers whom Bolshevik Russia was glad to supply. Her own turn would come when the ascendancy of the 'bourgeois' powers had been broken—perhaps.

Turkey had set the example. Persia followed it under the astute leadership of Riza Khan, who successfully engineered the deposition of the dynasty (which had not appropriated Western ideas, but had submitted itself and the country to Western domination) and procured his own recognition as shah. Like Mustapha, he reversed the policy, adopting Western methods while rejecting Western ascendancy. In 1926 Turkey and Persia, the new Turkey and the new Persia, formed an alliance. Some time earlier, a new amir in Afghanistan, Amanullah, had declared that British ascendancy there must end. As the British had no desire to exercise any more control in Afghanistan than would secure her against being used as a cat's-paw by Russia, British acquiescence was readily forthcoming—though the amir's methods had been aggressive enough to enforce a brief but decisive campaign as a preliminary. The subsequent relations were entirely amicable. But it may be noted that the Angora, Persian and Afghan governments all signed treaties with Russia at Moscow in 1921. Amanullah, however, was no less zealous to impose Western practices on his people than to resist Western dictation, so that at the end of 1928 his zeal brought about a revolution and his own expulsion from the kingdom. It is not difficult to see why at that time Bolshevik Russia eagerly propagated and England's enemies eagerly swallowed the curious fiction that the fall of Amanullah was to be attributed to British machinations.

Changes in the British Empire

THE relations between the several portions of that 'commonwealth of nations,' the British Empire, had been materially affected by the war, though it had by no means weakened the bonds, whether of sentiment or of interest, which held together that great exemplar of unity in diversity. But it had ceased to be possible to apply the old terminology of 'colonies' and 'possessions' which

Afterwards

belonged to a bygone age. The change was marked not so much by legislative acts as by the adoption of unprecedented practices as though they were normal developments from the practices of the past.

The 'Dominions' severally, with India, were admitted to membership of the League of Nations, without actual definition of their status. No formal right was bestowed upon them of sharing in the actual direction of imperial policy, but the sense that they had acquired that right was a pervading one—though not yet absolutely as a matter of course. They did not desire complete independence in the control of their foreign relations, but it was tolerably manifest that they would not hold themselves bound by agreements to which their assent had not been given, though it would be given as a matter of course if they had no strong reasons to the contrary. Apart from foreign affairs their autonomy was unqualified. 'Dominion status' in short was a condition without rigid definition,

but as to which misunderstandings in practice were not likely to arise, or likely to prove difficult of adjustment if they did arise.

Not in the Dominions themselves—though there appeared still to be a few intransigents in South Africa—but in other quarters, demands for separation from the Empire were heard. The scheme for Irish home rule, which had been so much in evidence before the war, broke down as a scheme when the war was over; the old 'Nationalists,' whose loyalty had been so conspicuously displayed in the great crisis, lost control of the movement, which was now guided by the fanatics of separatism, the Sinn Féin party; all the old smouldering passions and hostilities blazed up as fiercely as ever, and Ireland became the unhappy stage of insurrection, outrages and reprisals, until the British government arrived at a compromise with the less fanatical Sinn Féin leaders. They surrendered the demand for an independent Irish republic, the major



AT THE AFGHAN COURT ON THE EVE OF AMANULLAH'S ABDICATION

Although Amanullah, amir of Afghanistan, opposed Western rule in his dominions, he was extremely zealous in introducing Western customs. A revolution broke out among the Afghan people, unappreciative of his reforms, and he fled from his kingdom in January, 1929. Amanullah, wearing morning dress, is seen in the centre of this group of courtiers also dressed in Western fashion at the last meeting of his court before he abdicated. His brother, Inayatullah, in a light summer suit, is on the left.

Photo, Fox Photos

portion of Ulster was allowed to separate itself from the rest and remain attached to Great Britain, and the rest of Ireland became the autonomous Irish Free State with 'Dominion status' within the Empire and membership in the League of Nations. Within the Free State the new Free State government was left with entire responsibility for the preservation of order and the maintenance of law without British interference. The new constitution became law in December, 1923.

Egypt had been formally separated from the Turkish empire and transformed into a British protectorate at an early stage of the war without being actually annexed. From the beginning, however, in 1882, Great Britain had declared her assumption of control to be in intention temporary. When the war was over the old agitation for the complete independence of Egypt revived. Nationalism was so much to the fore in the European settlement that it was difficult to ignore its claims in dealing with Orientals who declined to accept the theory, of which the truth is so obvious to the Western mind, that the arguments

for the autonomy of European communities do not apply to other peoples. In 1922 the British government, not without misgiving, made up its mind to end the protectorate and leave Egypt to govern herself—or to find out for herself how to do so. But though she was to be in theory a sovereign state, Great Britain had too many interests of her own, and too many responsibilities at stake, to concede absolutely without qualification this independence, which was granted with reservation of certain subjects. These included the protection of foreigners in Egypt, her defence, and the control of the Sudan, which had never been an effective Egyptian possession and had, as a matter of actual fact, been brought under control not by Egypt but by the British. That control the British were to retain, with due respect for Egyptian interests.

Egypt was presented with a constitutional monarchy under King Fuad, who had figured as sultan during the protectorate. But the agitation, by no means favoured by the king, for the total withdrawal of all British controlling influences, continued;



AN EPISODE IN THE IRISH SINN FEIN MOVEMENT IN 1921

The rebellion, boycott and bloodshed which came to characterise the Sinn Fein movement originated in the strongly nationalist desire of its supporters for Irish independence. The Irish republican army organized under Sinn Fein auspices was responsible for the guerilla warfare which inaugurated the series of mutual outrages and reprisals of 1920-21. In May, 1921, the Customs House at Dublin was fired by Sinn Feiners and street fighting occurred. A Sinn Feiner lies dead in the foreground.

Photo, Central News.

Afterwards

with an accompaniment of occasional assassinations and 'student' outbreaks somewhat embarrassing to a party whose business it should have been to demonstrate its own administrative efficiency. That the limit of concession had been reached was made clear when a sympathetic Labour government in England proved as inflexible as its predecessor

THE Asiatic problem—as affected by the war—was no less prominent in India. The loyalty then displayed had given India a right to claim her reward, though whether what her agitators were demanding would be a reward was another matter. A great administrative experiment was at once inaugurated, extending in British India the amount of responsible control to be entrusted to Indians and to Indian elective bodies—the system to which the name of dyarchy was given. It did not touch the autonomous Indian principalities—not under British administration at all—which form approximately one third of the Indian Empire, a very important fact not always realized either in England or elsewhere. To the princes the unity of India meant the union of diverse states, of which they were the chiefs, in an empire by no means homogeneous, focussed in the person of the king-emperor, for which unity the only imaginable guarantee is the British imperial sovereignty. In the nature of the case they do not sympathise with movements in British India which tend to weaken that authority, however anxious they may be, individually or as a group, for an increased influence in the imperial counsels.

It was to British India then that dyarchy was to apply; and dyarchy may be described as provincial autonomy carried as nearly as possible to the safety limit, based on bodies of elected representatives, on the model—mutatis mutandis—of English representative institutions; the



A GANDHIST PROCESSION IN DELHI

Imprisonment of the Indian nationalist leader, M K Gandhi, in March, 1922, did not stop the non-co-operation movement. 'Gandhi Day' was devoted each month in Delhi to anti-British demonstrations, the spinning wheel paraded in this procession proclaims the boycott of foreign cloth.

Photo, Topical Press Agency

supreme government reserving to itself the control of certain specific subjects, a general overriding authority to be brought into play only if necessary, and sundry guarantees. The whole thing was avowedly experimental; it did not and was not intended to convey any promise of full parliamentary institutions, still less of even an ultimate withdrawal of the overriding British authority.

Nevertheless, the British supremacy in India is faced—in certain sections of the community within British India—by that anti-European sentiment which we have noted as prevalent in Asia, and which in India, and elsewhere, is curiously misrepresented, by its most fervent and voiceful propagators, as Indian 'nationalism.' Dyarchy, therefore, is the reverse of satisfactory to the extremists of Indian nationalism, whose desire is nothing less than the extrusion of the European, which it brings no nearer; so that the disaffected faction have directed their energies mainly to the attempt to make the whole reform abortive by withholding co-operation. But in India, as elsewhere, it is to be noted

that the anti-Europeans pin their faith, for the defeat of Europe, to methods and theories which are themselves the product not of Orientalism but of Western political and natural science.

China's new Republican Regime

CHINA presented at once the most emphatic and to Western eyes the most chaotic example of this revolt of the East against the West. Very shortly before the war the Manchu dynasty had been abolished, and under the guidance of the idealist Sun Yat-sen the empire had been transformed into what purported to be a democratic republic. Perhaps we may say that the ideal of which the new leaders were in pursuit was that which Japan had so amazingly achieved for herself in her revolution towards the close of the nineteenth century, when she remodelled herself on the basis of a scientific study of Western methods scientifically adapted to her own conditions by the patriotic co-operation of the political thinkers and the military caste, without foreign interference. But in China the political thinkers were befogged quite as much as they were aided by groping among Western ideas; they had no patriotic feudal aristocracy to strengthen their

hands; and the Europeans were always in the way. Also from their point of view it might be said that the Japanese counted not as Orientals but as ultra-Europeans. And on the top of this there came the Bolshevik propaganda, fundamentally anti-European—while beneath lay the normally inert masses who were always ready to attribute whatsoever evils befell them to the doings of the foreign devils, more particularly British and Japanese.

South China was dominated by the new progressive nationalists, North China by the old reactionaries; agreeing in their hostility to the foreigners and in nothing else; while naturally it was the south, not the north, that was disposed to put its trust in Bolshevik agents.

Though the foreigners had acceded at Washington to many modifications in the treaty rights they had acquired previously, they still retained rights which were galling. Trouble then broke out in 1925 in the form of anti-foreign riots at Shanghai, spreading to Canton, Hankow and elsewhere. The government, whether willing or not, was no more able than it had been in the past to give the foreigners the security for which they had to make provision themselves; and their doing so, as always, inflamed the popular Chinese hostility, while Bolshevik agents poured oil on the flames.

The Chinese republic had never succeeded in establishing a strong central government, even under the leadership of the highly respected begetter of the New Nationalism, Sun Yat-sen, who died in 1925. The Nationalist organization at Canton, whose military head was Chiang Kai-shek, did not recognize the military dictator Chang Tso-lin at Peking; there had already been active hostilities between the two parties, sundry generals intervening, each of them playing for his own hand with a tendency to kaleidoscopic permutations. The Europeans, finding nothing that they could definitely treat as the sovereign authority to deal with, sought to observe a strict neutrality while making such arrangements for security as were possible with any de facto authority which seemed likely to carry out its engagements, and supplementing them by the presence of



CHIANG KAI-SHEK AT HANKOW

The Cantonese nationalist leader Chiang Kai-shek became president of China in October, 1928. He supported the Bolshevik agent at the public demonstration which fomented anti-foreign feeling at Hankow in 1927.

Photo, Topical Press Agency

Afterwards

sufficient naval and military forces for taking action in the last resort.

The civil war seemed in 1926 to be going—with fluctuations—in favour of the Nationalists, whose avowed programme included the demand for the disappearance of all those foreign privileges which, it must be admitted, no European state would have tolerated in its own territories. To those claims Great Britain was much disposed to give full recognition, as soon as there should be a sovereign government in China. But there was no diminution of the anti-British agitation; though the British went to unprecedented lengths of conciliation in the hope of convincing the Canton or Hankow government of their own good faith; while the carefully limited strength of their military precautions was denounced as proof to the contrary, and the Kuomintang (the Nationalist government), with which the influence of Bolshevik agents was at its zenith, showed no power of controlling the excesses of its followers.

Its troops captured Nanking (March, 1927), but met with a sharp reverse at the hands of Chang Tso-lin when they advanced on Peking. The Kuomintang was apparently falling to pieces: Chiang Kai-shek tried to absorb its authority into his own hands, and lost his own authority instead in August; only to be recalled in November as the one man who might succeed in restoring unity. This proved at any rate so far successful that by midsummer the Nationalists were in possession of Peking, the northern resistance was practically broken, and it was reasonably possible to claim that there was once more a supreme government—that of the Kuomintang—in China. Chiang Kai-shek became president in October; the Kuomintang was shaking itself free from the sinister toils of its Bolshevik advisers; an efficient government in China was of more value to the



CHIANG KAI-SHEK'S ARMY MARCHES NORTH

Under the able leadership of General Chiang Kai-shek the Chinese Nationalist army advanced on Peking in 1928. His troops were ejected from Tsinan-fu, where they clashed with the Japanese, but Peking was nevertheless occupied at midsummer. This Southern detachment is seen entering Tsinan-fu.

Photo, Sport and General Press Agency

Europeans than concessions extorted from one that was thoroughly unstable; and the year ended with at least a reasonable prospect—though as yet by no means a certainty—of materially improved relations in the near future.

THE return then from the Far East to the West. It is to be noted that on the death of the first German president in 1923 the election to the Presidency fell upon the most respected if not the most brilliant of the German war chiefs, Marshal Hindenburg. Some perturbation was caused by the suspicion that this was a victory of the militarist faction, but this was finally removed by his acceptance of the Locarno Pact. When a soldier so distinguished and so loyal had faced the facts and set himself, without shedding a fraction of his patriotism, definitely on the side of European reconciliation, it was easier for Germany both to trust and to be trusted. The entry of Germany into the League followed Locarno in 1926; in 1927 began

the withdrawal of the military occupation ; and in spite of the fact that her claim to have completely fulfilled her obligations to disarmament was in some respects disallowed, the further supervision of her disarmament was transferred to a League commission of control, which replaced the inter-Allied military commission.

Disarmament had now become perhaps the leading international question. The cause was unfortunately little enough furthered by another naval conference, in which France and Italy did not join, while America, Japan and Great Britain failed to arrive at an agreed scheme, and more misunderstandings than understandings were developed. There was a still more curious sequel ; for in 1928, with a presidential election pending, it appeared that the security of the United States demanded not reduction but an extended programme of naval construction.

At the same time, however, there came from the same quarter a remarkable proposal not for disarmament but for an international pact renouncing war as an instrument of national policy. This was in reply to a less sweeping proposal from France for a Franco-American pact of perpetual friendship. France suggested that the operation of the pact should be limited to 'wars of aggression.' Nevertheless, a draft declaration was drawn up and submitted for consideration to the

greater powers as a basis for discussion. Great Britain led the way in expressing lively interest in the proposal and approving the principle, but urging the elucidation of details—primarily so that it might not be interpreted as an abrogation of the right of self-defence, or as overriding obligations incurred under the Covenant of the League of Nations. From the ensuing discussions it resulted that in July the British Empire generally and its member states severally declared their readiness to sign the pact. In August the Kellogg Pact was actually signed by the representatives of fifteen 'nations' including Germany ; while no fewer than fifty declared their adherence to it, though its final ratification by the United States was deferred till January, 1929.

THE tenth post-war year, then, ended on a note of promise and hope. The world has not succeeded in setting up a machinery which will make war, whether in the military or in the industrial sense, impossible in the future. The millennium has not burst upon the world. The Kellogg Pact for the 'outlawry of war' carries with it no irresistible sanctions. It has not washed out rivalries, jealousies and suspicions ; it is perhaps no more than an expression of a world public opinion. But it has manifested the fact that the public opinion is of overwhelming strength, of a

strength which even the most recalcitrant and defiant of governments cannot afford to ignore ; since it carries with it something approximating to a certainty that the wilful resort to arms for the settlement of differences until every conceivable avenue for peaceable adjustment has been thoroughly explored will result in crushing defeat. The machinery for exploration has itself been provided by the League, and by innumerable arbitration treaties. An extravagant optimism would be fatal, as fatal as extravagant pessimism. But to the eyes of faith at least the clouds are lifting.



GERMANY SIGNS THE KELLOGG PEACE PACT

There were fifteen signatories, of whom seven represented the British Empire, to the pact renouncing war which was proposed by the U.S. secretary, F. B. Kellogg, in July, 1928, and accepted by the Senate of the United States in January, 1929. Herr Stresemann, the German delegate, was the first to sign.

Photo, Photopress

THE ECONOMIC CHAOS OF EUROPE

Social Effects of the wide Economic
Dislocation wrought by the Great War

By JOHN MAYNARD KEYNES C.B.

Fellow of King's College, Cambridge; Treasury Representative at Paris Peace Conference,
1919; Author of *The Economic Consequences of the Peace*, etc

THE direct destruction of material wealth by war is generally exaggerated. Fortunately, the accumulations of man's wealth are not of such a kind that they can be quickly squandered. Roads, railways, buildings, machinery, drainage, hedges, fences, ditches and clearings embody by far the greater part of the accumulated wealth of past generations. Thus war must be waged in the main by contemporary effort, and can use up very little more than what is actually produced while it is going on. It cannot destroy knowledge or make an overdraft on the bounty of nature. It cannot even much diminish fixed capital, except where a countryside is actually ravaged; and such devastation, though it might be locally overwhelming, affected, even in the Great War, but a small part of the invaded countries and a negligible proportion of the civilized areas of the whole world.

Thus it was possible to make good the material destruction, even of the Great War, by a very few years of the community's regular savings. All the houses destroyed in France and Belgium were not more than the normal building programme of a year or two in western Europe alone, and the injury to their railways was far less than a year's new construction in an epoch of railway development. Within two years the soil of the devastated areas had been already restored by the labour of the peasants. And there is an even more striking illustration. The destruction of shipping was on a far greater scale proportionately than any other type of destruction. The material damage to the mercantile marines of the world was not merely local, but world-wide. Yet by the end of 1921 it had been repaired com-

pletely, and the world's mercantile marine had been restored to its former strength.

The severity of the conditions which faced Europe in 1919 were not primarily due, therefore, to those ravages of war which were most evident to the eye. The problem was a problem of disorganization: a problem of the exhaustion of the stocks of food and raw material, and of the breakdown of credit. Owing to the exhaustion of food and raw materials, a vicious circle was set up by which the ordinary productive processes which would have replenished these supplies fell off to an extraordinary degree in their power of productivity. Moreover, normal organization of transport and exchange, by means of which products could be conveyed where they were most wanted, had broken down, while the collapse of credit made it impossible for Europe to purchase its usual supplies from overseas.

During the first half of 1919 the vicious circle of acute want leading to acute unemployment was becoming steadily aggravated. Violent and prolonged internal disorder in Russia and Hungary; the creation of new governments and their inexperience in the readjustment of economic relations, as in Poland and Czecho-Slovakia; the loss throughout the Continent of efficient labour through the casualties of war or the continuance of mobilisation; the falling off in efficiency through continued under-feeding; the exhaustion of the soil from lack of the usual applications of artificial manures throughout the course of the war; the unsettlement of the minds of the labouring classes on the fundamental economic issues of their lives; all these things conspired to reduce the actual production of goods to the

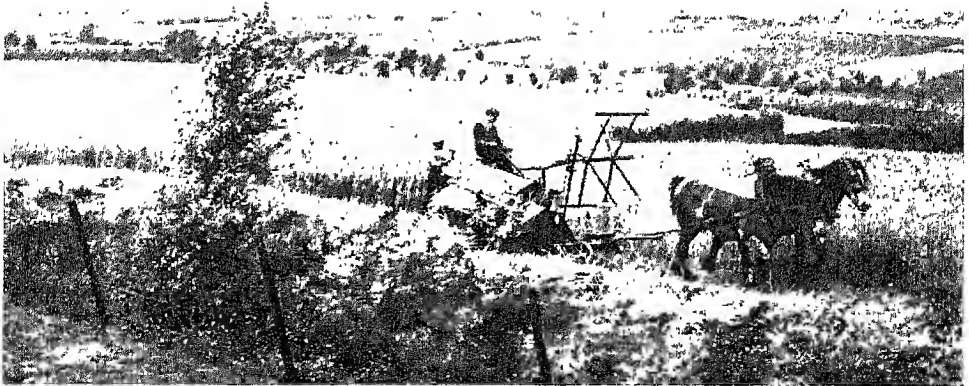
lowest figure within modern experience, precisely when they were most needed.

There was moreover (to quote Hoover) 'a great relaxation of effort as the reflex of physical exhaustion of large sections of the population from privation and the mental and physical strain of the war.' In July, 1919, fifteen million families were receiving unemployment allowances in one or another European country. The coal production of Europe at that date was estimated to have fallen off by 30 per cent. Whereas before the war Germany produced 85 per cent. of the food consumed by her inhabitants, Professor

Starling's report on food conditions in Germany stated that the productivity of the soil in the summer of 1919 was diminished by 40 per cent., and the effective quality of its livestock by 55 per cent.

The population of Europe is probably 100,000,000 greater than can be supported without imports. The imports can only be obtained either from loans or in return for exports. Here again, therefore, there was a vicious circle. The credit of a large part of Europe had broken down and loans were unobtainable. Yet it was necessary that substantial imports should take place before exports could be possible.

Nor must we overlook, in the spirit of oblivion which wipes out bad memories, the physical sufferings of the civilian populations of central Europe during the later stages of the war, and the aggravation of other difficulties in the first year of the peace resulting from the appalling conditions of health over wide territories. In May, 1919, it was reported that there were in Austria alone at



TEN YEARS AFTER : A TRIBUTE TO BELGIAN ECONOMIC STABILITY

Not only the recuperative power of the soil in war-devastated areas but the existence of a fundamental wealth that war cannot destroy are shown in these two landscape views of Mont Kemmel, taken in 1918 (top) and 1928. Kemmel was an important Allied observation post in Belgium and the area was blasted to pieces during its capture and recapture in 1918. Yet ten years later there was nothing to show that this fertile agricultural district had ever known war, except the absence of tall trees.

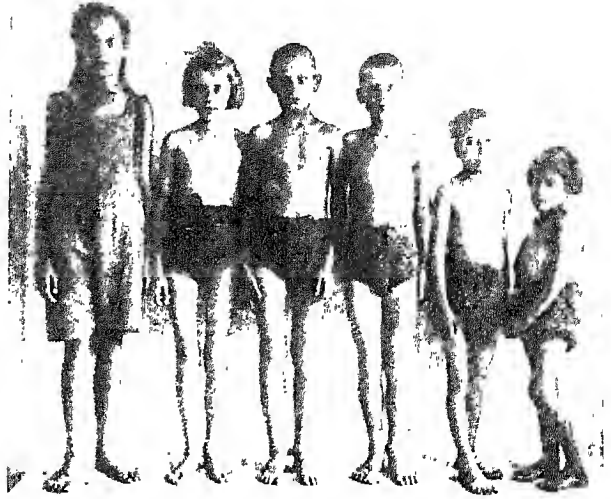
The Times and (top) Daily Telegraph : photo, Antony d'Ypres

least 250,000 to 400,000 people who required treatment for tuberculosis. As a result of malnutrition a bloodless generation was growing up with undeveloped muscles, undeveloped joints and undeveloped brain. It is well, too, to record some of the more horrifying reports of that period. The following is by a writer in the *Vossische Zeitung*, June 5, 1919, who accompanied the Hoover Mission to the Erzgebirge:

I visited large country districts where 90 per cent. of all the children were rickety and where children of three years are only beginning to walk. . . . Accompany me to a school in the Erzgebirge. You think it is a kindergarten for the little ones. No, these are children of seven and eight years. Tiny faces, with large dull eyes, overshadowed by huge puffed, rickety foreheads, their small arms just skin and bone, and above the crooked legs with their dislocated joints the swollen, pointed stomachs of the hunger oedema. . . . 'You see this child here,' the physician in charge explained, 'it consumed an incredible amount of bread, and yet did not get any stronger. I found out that it hid all the bread it received underneath its straw mattress. The fear of hunger was so deeply rooted in the child that it collected stores instead of eating the food; a misguided animal instinct made the dread of hunger worse than the actual pangs.'

Nevertheless there were at that time many persons in whose opinion justice required that such beings should pay 'reparations' to the Allies until they were forty or fifty years of age.

When we consider the extraordinary recovery of Europe within so short a period as five years after the war, we may sometimes feel that the anxieties of 1919 were exaggerated. But even in the light of this subsequent happier experience I do not think that they were. It was obvious, even then, that the fundamental sources of the economic life of Europe were in the main untouched. The question was whether Europe could secure breathing space, or whether famine and revolution would destroy organization over increasingly wide areas before the necessary



CHILD VICTIMS OF MALNUTRITION

Of these Viennese children, aged 12 years, the girl on the left is normal. The others show the arrested development common

in Austria. Softening of the bones resulting in spinal curvature caused the under-development of the girl on the right.

Courtesy of the 'Save the Children Fund'

relief could be brought into operation. For the Conference of Paris, which occupied the first six months of 1919 with so many futile discussions, was concerned with almost every problem except the most pressing one. During those months—a point which is apt to be overlooked by most contemporary historians—the blockade of Germany continued. It was still uncertain if Germany would sign the peace treaty. Meanwhile, therefore, nothing could be done which might do even a little towards restoring her strength and courage. The result was that all efforts at reconstruction, not only in Germany but in the whole of central Europe and the Balkans, were necessarily delayed.

Against this sombre background of starvation, unemployment and political disorder, the Treaty of Versailles was signed by the German delegates on June 28, 1919. Fourteen days later the blockade of Germany was at long last raised by the Allies, and Germany was free to knit together again, so far as she was able, the broken threads of her international trade.

Meanwhile, a very different picture was being exhibited by the rest of the world.

In the world at large there was a famine of ready goods, not so acute as that in central Europe, but in a degree quite unprecedented in the annals of nineteenth-century trade. The demobilised armies were returning to work. All governments were reluctant to put any check on the rise of wages. On the contrary, they were only too ready to give every opportunity for the 'good times'.

The Boom and Slump of 1919-21 which had been promised after the war to be actually realized. Thus the general tendency throughout the world was for money incomes to be in the aggregate unprecedentedly large. Almost every country was off the gold standard, and money was the one commodity to the rapid manufacture of which there was no serious impediment. The restrictions on the rise of price of many of the necessities of life, which had marked the later phases of the war, were continued. Limitations on the price of bread existed in many countries; rent-restriction acts were almost universal. Thus the abundant money incomes finding their outlet in daily purchasing were reflected in a rapidly rising price level of all articles whose price was not limited by law.

Furthermore, there is in the modern industrial world a very considerable time lag between the beginning of manufacture and the actual emergence of the finished product, ready for the consumer, out of the other end of the industrial machine. Labour is paid for as soon as it has done its job. But many months must elapse, sometimes more than a year, before there is any corresponding increase of goods available for purchase by the consumers.

A failure to restrict money incomes in 1919 was natural, and perhaps humanly inevitable. But the combination of abundant money incomes with a shortage of ready goods could only have one result. From April, 1919, to February, 1920, the prices of raw materials rose in England by an average amount of 4 per cent. a month, and this was representative of what was going on all over the world. As a consequence, every producer was selling his goods for more than he had anticipated, and at a substantial surplus above his costs of production. Windfalls on this

scale to all holders of commodities had never been experienced before; while the difficulty of distinguishing between what might be a more or less permanent increase in price due to the lasting consequences of war finance, and the temporary additional excess superimposed on this by the trade boom, interfered with accurate forecast even by those who knew very well that trade booms come and pass away again.

There were two other factors also which multiplied the stream of business transactions. Since many overseas markets had been starved by the war of their usual supplies and were replenishing stocks, it was difficult to know how much current demand represented such replenishment and how much of it was being absorbed by current consumption.

Secondly, the abnormal demand stimulated by all these influences was yet further exaggerated because merchants, experiencing an unusual difficulty in obtaining deliveries, began placing orders on an even larger scale than they really wanted, in order to make sure of obtaining at least a proportion.

For all these reasons merchants and middlemen in all quarters of the world over-ordered enormously, and this over-ordering engendered, in spite of the poverty of central Europe, a general atmosphere of spurious prosperity and excitement. Employment was excellent, and so long as prices continued to rise profits were enormous. But the apparent prosperity carried within it the seeds of an inevitable reaction. Business men were entering into commitments on a scale greatly in excess of the current rate of consumption and at a price level above that which the currency systems of the world could support, hugely inflated though they were, when once the actual goods were coming into existence and needing finance.

It was not long, therefore, before the money incomes of consumers were inadequate to purchase the gradually increasing volume of goods which were coming forward, at a price level equal to the price which manufacturers had been anticipating or to their actual costs of production. As early as the spring of

1920 the tide had already begun to turn, and by the summer of 1920 prices were falling again almost as rapidly as they had previously risen. In Great Britain prices reached their maximum in June and July of 1920, though wages continued to rise till October, 1920. By the beginning of 1922 sterling prices were little more than half what they had been, while wages had fallen to about three-quarters of their maximum figure.

Just as the boom had been generated by active buying overseas and not from the impoverished countries of Europe, so it was the sudden drying up of the overseas markets—India, China, Australia, South Africa and South America—which brought about the collapse. Thus at the period we are now considering—that is to say, from the spring of 1920 to the summer of 1921—it was not, as at a

slightly later date, the collapse of the European exchanges which caused the trouble, but the collapse of the exchanges between London and New York on the one hand and the leading countries of Asia and South America on the other. Indeed, if we compare February, 1920, when the boom was still in full strength though drawing to an end, with July, 1921, we find that the French and German exchanges on London had actually improved at the latter date; that the dollar value of sterling had also improved slightly; but that the values of the currencies of India, China, Argentina, Brazil and Chile, in terms of British sterling, had fallen by 51 per cent., 60 per cent., 35 per cent., 59 per cent. and 54 per cent. respectively. There were actually short periods when remittance to London, both from South Africa and from Australia, was scarcely obtainable.



DEMONSTRATION OF THE UNEMPLOYED IN LONDON, 1920

The coal strike, which began on October 16, 1920, increased unemployment in some districts, and on October 18 numbers of unemployed marched to Whitehall to demonstrate outside the premier's house in Downing Street, where the mayors of the metropolitan boroughs were interviewing him on the out-of-work question. A police charge was necessary to disperse the rioters. This view of the entrance to Downing Street shows a small cordon of police restraining a dense mob.

Photo, Topical Press Agency

Such movements as the above were, of course, catastrophic. The world is interrelated and all quarters play their part. The United States could do no more than any other country. The manufacturers of Great Britain and of western Europe were now faced not only with the impoverishment of their European customers but with the cessation of buying from the rest of the world and found themselves with stocks of goods on hand and in course of manufacture which they could not hope to market at prices by any means equal to the cost of production.

A new misfortune was therefore at hand to aggravate the condition of Europe and the inevitable consequences of the war. The year 1921 was one of the worst ever experienced by traders. The collapse of the boom and of prices throughout the world, calamitous strikes in England, rebellion in Ireland, reparation crises in Europe, famine and the failure of Communism in Russia, bad harvests in Asia broke the general prosperity, and broke it suddenly, to a degree unprecedented. Two isolated facts may be quoted to illustrate the extraordinary degree of the depression. Lancashire's exports of cotton piece goods fell to the lowest figure since the American Civil War,

England's output of pig iron was the lowest for seventy years. Perhaps one third of the manufacturing capacity of the world stood idle. Shipping rusted in the ports. But not for lack of goods. Warehouses were full and there was offered the paradox of universal want apparently caused by the redundancy of goods. While many lacked food and clothing the misfortunes of trade were attributed to the excessive stocks of commodities.

While these violent oscillations were disturbing the trade of the world the economic consequences of the Treaty of Versailles. The History were very slowly working of Reparations themselves out in central Europe. The treaty had been ratified on January 10, 1920, and with the exception of Upper Silesia the partition of which was not settled by the Council of the League of Nations until 1921 the territorial frontiers of Germany were finally fixed by the middle of 1920.

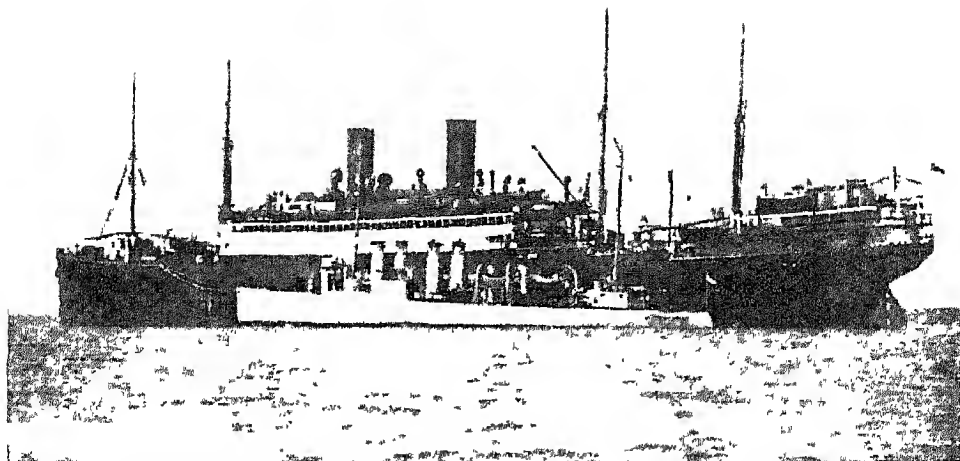
In January, 1920, Holland was called on to surrender the Kaiser and, to the scarcely concealed relief of the governments concerned, she duly refused. On March 13, 1920, an outbreak by the reactionaries in Berlin (the Kapp 'putsch') resulted in their holding the capital for



GERMAN REVOLUTIONARY TROOPS PICKETING BERLIN IN 1920

Some 8,000 troops supported the coup d'état which displaced the German government in March, 1920, and substituted a new government in Berlin with Dr. Wolfgang Kapp as imperial chancellor and Prussian premier. For five days the revolutionaries were successful in holding the capital, but the general strike there hampered their efforts and the outbreak was subdued. The photograph shows a section of the revolutionary forces in occupation of the town.

Photo, Alfieri



REPARATIONS IN KIND SURRENDER OF THE GERMAN MERCHANT FLEET

Germany's surrender of some three and a half million tons of merchant shipping was a condition of the Armistice, and arrangements were made at the Brussels Armistice Commission in 1919 for the reception of the German ships at various ports. This photograph shows one of the surrendered vessels the Hamburg Amerika liner Cleveland in the Solent with a large United States destroyer alongside it. Up to 1921 this was the only sort of reparations of which Germany was capable.

El to C t d V e s

five days and in the flight of the Liberté government to Dieppe. The defeat of this outbreak, largely by means of the weapon of the general strike (the first success of which was, it is curious to note, in defence of established order) was followed by Communist disturbances in Westphalia and the Ruhr. In dealing with this second outbreak the German government dispatched more troops into the district than was permissible under the treaty, with the result that France seized the opportunity, without the concurrence of her allies, of occupying Frankfurt (April 6, 1920) and Danstadt.

Meanwhile, little or nothing was done to carry out the reparation clauses of the treaty, which had thrown on Germany unprecedented and impossible financial burdens. In the course of 1920 Germany carried out certain specific deliveries of goods. A vast quantity of identifiable property removed from France and Belgium was duly restored to its owners. The mercantile marine was surrendered. But it is not surprising that in the midst of the political and revolutionary disturbances mentioned above Germany paid no cash, and the real problem of reparation was still postponed.

With the conferences of the spring and summer of 1920 there began the long

series of attempts even after nine years not complete, to modify the impossibilities of the treaty and to make it more workable. It is difficult to keep distinct the series of a dozen discussions between the premiers of the Allied powers which occupied the year from April 1920, to April, 1921. Each conference was generally abortive, but the total effect was cumulative, and by gradual stages the project of revising the treaty gained ground in every quarter.

The most important results of these conferences were the decisions of Paris early in 1921, by which a revised scheme of reparation payments was proposed to Germany by the Allies very materially less than what was due under the treaty, though still two or three times as great as Germany was likely to be able to pay. At a conference held in London in March, 1921, the Germans offered a counter-proposal, the capital value of which was estimated at about £1,500,000,000, which represented, however, less than a quarter of the demand of the Allies. Two days later Lloyd George read to the German delegation a lecture on the guilt of their country, describing their proposals as 'an offence and an exasperation,' and announced that unless Germany accepted the Paris



BRITISH AND FRENCH TROOPS IN OCCUPATION OF DUESSELDORF

Düsseldorf, the Ruhr capital, was one of the three Rhine towns occupied on March 8, 1921, by the Allied forces in accordance with the ultimatum issued to Germany by the London Conference. General Morland, commander-in-chief of the British troops on the Rhine, is seen at the salute during a tour of inspection. With him is the French commander, General Gaucher.

Photo, Sport & General Press Agency

decisions certain towns on the right bank of the Rhine would be occupied—a threat which was undoubtedly illegal, even under the provisions of the Treaty of Versailles. After various attempts at an accommodation behind the scenes, negotiations broke down. Their rupture, as *The Times* of March 8, 1921, reported, was received in Paris 'with a sigh of relief,' and orders were telegraphed by Marshal Foch for his troops to march at 7 a.m. next day. This futile phase was not, however,

continued for long. The Allies occupied themselves with the preparation of revised proposals, which were offered to Germany in May, 1921, backed up by the second ultimatum of London, not less illegal than the first, by which the non-acceptance of these terms was to be followed by the occupation of the Ruhr in addition to the three towns—an assault which might be expected to have the result of breaking the economic life of the country. Within the space of a little



ENTRY OF THE FRENCH TROOPS INTO ESSEN IN 1923

Great Britain played no part in the invasion of the Ruhr district, which was carried out by French and Belgian troops in January, 1923, as a result of the Reparation Commission's declaration that Germany's coal delivery was in default. Essen, home of the famous Krupp Works and one of Germany's chief munition centres, was occupied on January 11, and its inhabitants, resentful but curious, are here seen watching the arrival of a battery of artillery.

Photo, Sport & General Press Agency

more than a year the invasion of Germany beyond the Rhine had been threatened five times, and actually carried out twice. On this occasion, however, Germany accepted the proposals, and for three years the terms of the London settlement nominally held the field.

Under this settlement Germany was to pay in each year, until her aggregate liability was discharged, a sum of £100,000,000, and a further sum equal to 26 per cent. of the value of her exports, making a total probably in excess of £200,000,000 a year. Progress was undoubtedly being made. The gigantic figures of 1919 were rapidly falling, even in the imaginations of the Allies. But unfortunately it made but little practical difference to Germany so long as the demands, although moderating, were still in excess of her capacity to pay.

The acceptance of the London schedule of payments was important in that it secured for Germany a brief period of comparative calm. For a short time

Germany made certain payments, with the assistance, as we shall shortly see, of foreign purchases of marks by speculators.

But it was clear that the respite could not be a long one. By the summer of 1922 it was evident that Germany's feverish efforts to collect sufficient resources to make the required payments could not possibly be successful. In August the German government applied to the Reparation Commission for a moratorium, and after some haggling Germany was released from further cash payments for the rest of that year. But there was no new settlement, and the payments required from her were merely postponed until the spring of 1923. Before this date was reached, however, Germany was declared by the Reparation Commission (January, 1923) to be in default in her delivery of coal, whereupon (January 11, 1923) French and Belgian troops invaded the Ruhr, without, on this occasion, the approval or assistance of Great Britain.

Germany was now paying nothing towards her liabilities for reparation, but her country was invaded by foreign troops and her economic life hopelessly

disorganized and impoverished. The very acuteness of the crisis, however, hastened on, perhaps, a radical solution. On November 30, 1923, the Reparation Commission appointed committees of experts to prepare yet one more scheme. Out of this inquiry there emerged the famous Dawes scheme, which was accepted both by the Reparation Commission and by the German government on August 9, 1924. The occupation of the Ruhr was terminated. The normal economic life of Germany was recommenced under conditions by no means intolerable.

For the Dawes scheme not only made a further cut in the amount of Germany's liabilities, but provided

the machinery for curtailing them yet further in the event of the remittance of the required amounts for the exchanges being proved impracticable on the basis of certain predetermined tests. Moreover, Germany's liabilities during 1924 were provided for almost entirely by means of a foreign loan, and not before 1928 were her liabilities to rise to so high a figure as £100,000,000 per annum. Thereafter the figure was to be £125,000,000, with the possibility of a supplementary payment calculated by reference to Germany's degree of prosperity. Up to the end of 1928 Germany was able with some ease to meet her gradually increasing liabilities under the Dawes scheme, though only by borrowing abroad in each year a larger sum than that which she was paying to the Allies; but most expert opinion agreed that the payment of the maximum Dawes annuity without assistance from foreign borrowing would probably be impossible, and that sooner or later yet one more revision would have to be made. Indeed, on December 22, 1928 (the day on which these words were written), the Allies appointed yet one more committee, on which for the first time Germany also was represented, with instructions 'to draw up proposals for a complete and final settlement of the reparation problem.'

It is interesting to tabulate the successive demands and forecasts what Germany would, or should, pay from the date of the British general election in 1918 to 1928.

Payments under
the Dawes scheme

Reparations
in default

The figures express annuities of millions of pounds sterling:

1. Lord Cunliffe and the figure given out in the British general election of 1918	1,440
2. M. Klotz's forecast in the French Chamber, September 5, 1919	900
3. The assessment of the Reparation Commission, April, 1921	114
4. The London settlement, May, 1921	230
5. The Dawes scheme — normal annuity	125

In *The Economic Consequences of the Peace*, written in the summer of 1919, the sum of £100,000,000 was put forward by the present writer as the best estimate possible of the maximum annual payments that it would be reasonable to expect; and this is the figure that was received in the year 1927-28.

We have seen earlier how, during the period immediately succeeding the Treaty of Versailles, Germany made virtually no payments in cash in respect of the great reparations, but how during **The great Inflation** 1922, after her acceptance of the London schedule of payments and before the occupation of the Ruhr, she was driven to make great efforts to find cash resources. The expedients to which she had recourse in her attempts to meet the demands of the Allies gave rise to one of the most extraordinary episodes in the history of money.

During the war the exigencies of war finance had brought about a gradual decline in the exchange value of the mark, which was only interrupted at the end of 1917 by Germany's temporary military successes. Up to June, 1918, however, the decline was both moderate and gradual. From June, 1918, onwards the downward movement was more rapid, and with the raising of the blockade in July, 1919, the acute demand for food and raw materials from abroad soon brought the mark to a value between a fifth and a tenth of its nominal parity. One would have expected a collapse of this kind to be so injurious to a country's credit as to be an unmitigated evil, both in its indirect and in its direct consequences. In the case of Germany, however, the initial decline of the mark was paradoxically a means, and probably the sole means available in the

circumstances, by which she could secure very substantial financial aid from abroad.

After the mark had fallen to such a level that more than a hundred marks could be obtained for £1 sterling, many persons all over the world formed the opinion that there would be a reaction some day to the pre-war value, and that therefore a purchase of marks or mark bonds would be a profitable speculation. This investment, **Speculations or speculation**, proceeded on in the Mark so vast a scale that it placed foreign currency at the disposal of Germany which at the end of 1921 was estimated at from £200,000,000 to £250,000,000. When the experts of the Dawes Committee came to examine the matter in the spring of 1924 they put the figure of Germany's receipts through the sale to foreigners of mark bank balances and mark banknotes up to December 31, 1923, at somewhere about £400,000,000. It was these resources which in the first instance enabled Germany, partially at least, to replenish her food supplies and to re-stock her industries with raw materials, and subsequently in 1922 to meet the financial demands of the Allies, at any rate for a few months. In addition, it even enabled individual Germans to acquire foreign banknotes, or to remove a part of their wealth away from the risks of German economic life for investment in other countries.

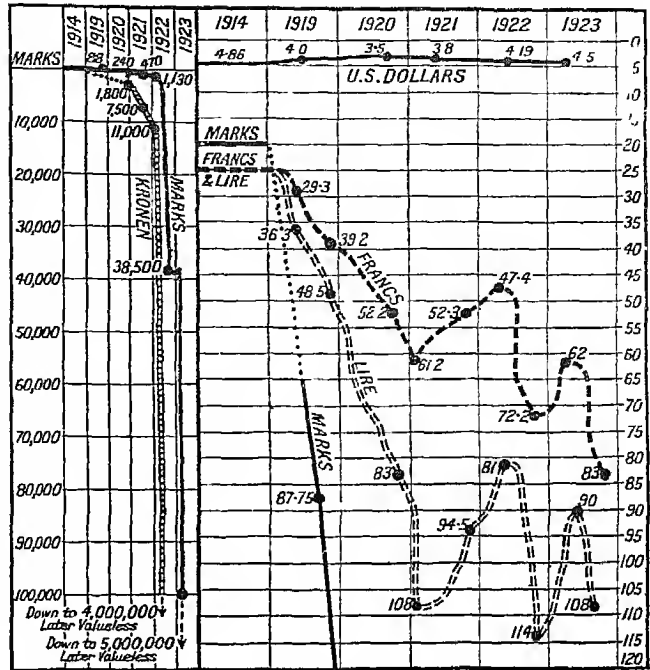
As matters actually turned out, the expectations on which these investments by optimistic foreigners were made were totally disappointed. Apart from intermittent and short-lived fluctuations, the exchange value of the mark continued to sink, until finally, at the end of 1923, the whole crazy structure was swept away and a new currency system introduced. By this date the total face value of mark notes which had been issued was estimated at between 400 and 500 trillions (i.e. million million millions) of marks, and at the date when the transition was made the terms fixed for the liquidation of this incredible mass of paper values declared one billion (i.e. million million) paper marks to be equal in value to one shilling.

It follows that the whole of the sum of £400,000,000 thus invested by foreigners

was totally lost by them, and constituted in fact a present to the German people. It provided, indeed, an extraordinary episode of poetic justice visited on the outside world as a retribution for the excessive and impossible demands which were being made on the German people. The alarms and excursions of invasion beyond the Rhine, the conferences, the propaganda and the ultimatums squeezed out of Germany a far smaller sum than that with which foreign speculators were simultaneously presenting her.

Let us return, however, to the earlier phases of this remarkable story. During 1920 and the first part of 1921 speculative purchases by foreigners provided Germany with nearly enough resources to meet her adverse balance of trade. At the beginning of 1920, 185 marks were worth £1 sterling, and twenty months later, in August, 1921, £1 sterling was still worth no more than 300 marks. Up to the end of 1920, however, and even during the first quarter of 1921, Germany had made no cash payments for reparation, and had even received cash (under the Spa agreement) for a considerable part of her coal deliveries. But after the middle of 1921 the various influences, which up to that time had partly balanced one another, began to work all in one direction; that is to say, adversely to the value of the mark.

Currency inflation continued—for the mark banknotes came into existence by the government printing just so many of them as were necessary to meet its expenses—and during 1921 the note circulation of the Reichsbank was nearly trebled. Some foreign investors in marks began to take fright and, so far from increasing their holdings, sought to diminish them. And now at last, after the London



COLLAPSE OF THE EUROPEAN CREDIT MACHINE

The chart on the left shows the fall in the pound sterling values of German mark and Austrian krone before their stabilisation in 1924; that on the right expands a small fraction of it in order to compare the movements of dollar, franc and lira. Before the blockade was lifted in 1919 the mark had no exchange value.

ultimatum, the German government was called on to make important cash payments on reparation account. By November, 1921, £1 sterling was worth 1,000 marks, and apart from one brief recovery the headlong fall proceeded thereafter at an ever-increasing rate up to the final collapse of 1923.

The precariousness which this extraordinary episode introduced, not only into the business life of Germany but into the private affairs of every citizen, was something which had to be experienced to be believed. The value of all money savings was swept away; prices and wages could not move fast enough to keep different values in a suitable relationship to one another. If a man did not spend his wages on the day he received them, they might have halved in value, or worse, before the next morning. The whole of life became an involuntary but hectic gamble. Nevertheless, these experiences may have been necessary to convince the Allies of the futility of their previous

methods for extracting reparations, and were perhaps an inevitable prelude to the Dawes scheme and the safeguards, which that scheme incorporated, for the future stabilisation of the German mark.

What happened in Germany was repeated, with minor variations, in Austria and also in Poland, though in Poland the excuse of overwhelming reparation demands was, of course, lacking. There was but little difference in the course of the disease, except that the catastrophic collapse came in Warsaw and in Vienna some months earlier than in Berlin, so

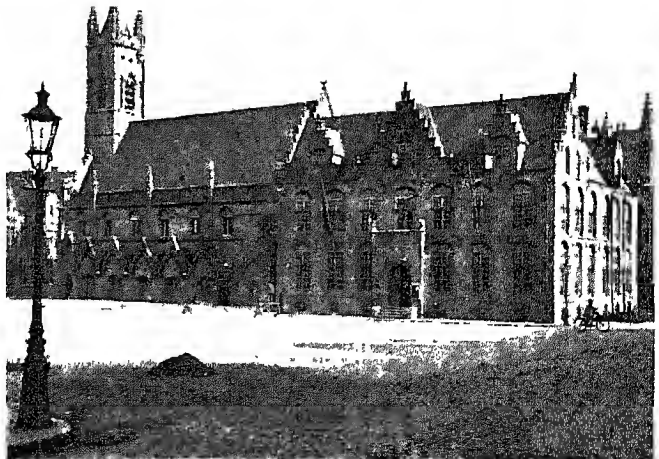
down by the Brussels Conference of 1920, the Genoa Conference of 1922, and the Dawes Report of 1923. The invasion of the Ruhr in January, 1923, was the last act of violence bred out of the war spirit. Since that date every important decision affecting the relations between the peoples of the formerly allied countries and the peoples of the former Central Powers has been, both in intention and in fact, of a healing and pacific nature. The inherent stability of the European economic systems has responded with a rapidity and completeness which could not have been anticipated.

Great Britain has troubles of her own due to pride and precipitancy in her financial and currency policies, as in her reversion to the gold standard. But all Europe has stable currencies. The devastated areas are entirely restored. The standard of life of German working men is somewhat higher than it was before the war (see page 5071).



that it was these countries that first experienced the full force of a type of speculation opposite to that which had furnished them with foreign resources in the early days of the inflations; namely, that of the bear speculators who, anticipating a further fall, endeavoured much more successfully than the optimistic party to make a profit by selling these currencies in the expectation of being able to buy them back a little later at a much lower value.

It is not part of my task to describe in this place the reconstruction of European economic life on the principles laid



RUIN AND RESTORATION IN BELGIUM

Belgium has made a wonderful recovery from her severe war wounds. Nieuport, the 'farthest west' reached by the enemy along the coast, was a sorely scarred battle ground. By 1918 (top) its market square was shattered almost beyond recognition.

The 1928 view shows that it has been reborn.

Courtesy of the 'Daily Telegraph'; photos, Antony d'Ypres

THE NEW EUROPE AND THE LEAGUE

Constitution and Functioning of the new
Organization for the Maintenance of Peace

By WICKHAM STEED

Lecturer on Central European History, King's College, London University; Author of
The Hapsburg Monarchy, etc.

THE chief distinction between the new Europe and the old lies in the existence of the League of Nations. Without the League, Europe would have been changed, not renewed. The number of European states would have been increased, but their relationship to each other would have remained on the old footing. Europe is new because the Covenant of the League is an inseparable part of all the treaties that make up the peace settlement. The terms of the Covenant form the first twenty-six articles of all of them, and are as binding upon their signatories as any of the clauses that relate to frontiers or to reparations.

In the conflagration of the Great War the old Europe was consumed. The terrible character of the war, and a belief that it might have been avoided had there existed an international authority strong enough to insist upon discussion and conference between the contending powers, combined to create in Western countries a conviction that some international organization must be set up to prevent the recurrence of any similar catastrophe. This conviction, and the movement in favour of a League of Nations which it inspired, was strongest in Great Britain and in the United States, though it was firmly held also in France. In London and New York associations were formed to promote schemes for a League. The Great War came to be regarded as a war to end war, having for its principal object the formation of an organization among the principal peoples of the world with power to ostracise armed force as a means of settling international disputes.

Before this idea had gained ground in western Europe a plan for positive

co-operation between nations on behalf of peace had been drawn up, as early as the autumn of 1914, by an American politician, Colonel House, the friend and confidential adviser of the president of the United States, Woodrow Wilson. Looking upon the outbreak of the Great War as the bankruptcy of European diplomacy, and attributing that bankruptcy chiefly to the lack of any organized system for consultation and agreement, Colonel House suggested that President Wilson should promote such a system between the states of North and South America. He had in mind a League of American states that should safeguard them against aggression and provide a mechanism for the peaceful settlement of disputes.

In its original form his plan fell through, but the idea which inspired it presently found expression in the Covenant of the League of Nations. President Wilson himself certainly entertained the notion of a general association of nations before the end of 1914, but it only took practical shape after he had received reports of conversations between Colonel House and the British foreign secretary, Sir Edward Grey, in London at the beginning of February, 1915. In these conversations Sir Edward Grey insisted that the United States (which was then neutral) should come into some general guarantee of world-wide peace at the end of the war. A similar idea was advocated by Lord Robert Cecil in Great Britain and by Léon Bourgeois in France; and when, on May 27, 1916, some eleven months before the United States entered the war, President Wilson announced in a speech to the American 'League to

Enforce Peace' his acceptance of the principle of a League of Nations, his declarations were based upon material drawn from the conversations and subsequent correspondence between House and Grey.

President Wilson is usually regarded as the real founder of the League of Nations. But for his insistence it is indeed probable that it would never have been effectively established; and it is certain that the embodiment of the League Covenant in the peace treaties was due to his determination that the League should be the basis of the peace. Yet it is true that few, if any, of the ideas in the Covenant of the League were conceived by President Wilson himself. His relation to the Covenant was mainly that of editor or compiler. He had two central convictions—that the League



LORD ROBERT CECIL

Born in 1864, Lord Robert Cecil entered Parliament as Conservative member for East Marylebone in 1906. One of the chief exponents of the League of Nations, he represented Great Britain in its interests at the Paris Peace Conference

Photo, Philip Brain

of Nations was necessary and that it might be brought into existence immediately after the war. But without the thoughtful work of the other advocates of the League his leadership might have little availed.

To President Wilson belongs, in any case, the credit of having been the first responsible statesman to declare that the establishment of a league or association of nations must be one of the main conditions of peace. On January 8, 1918 (the United States had declared war on Germany in April, 1917), he delivered a presidential address to a joint session of the American Congress, laying down fourteen points, or principles, on which the peace settlement should be based. The last of these 'Fourteen Points' ran: 'A general association of nations must be formed under specific conventions for the purpose of affording mutual guarantees of



PRESIDENT WILSON'S ADVISER

Colonel Edward Mandell House, born at Houston, Texas, in 1858, was sent by President Wilson to review the European situation in 1914. In the same year House drew up his plan of international co-operation for peace.

Photo, Keystone View Co.



LEON BOURGEOIS

In October, 1919, the French statesman Léon Victor Auguste Bourgeois was appointed French representative of the League of Nations. He was deeply in sympathy with the scheme and himself the author of a plan for its propagation

Photo, Henri Manuel

political independence and territorial integrity to great and small states alike.' Whereas some of his advisers, and some leaders of European opinion, believed at that time that a League of Nations should include only the 'Allied and Associated Powers' which were waging war against Germany and Austria-Hungary and that, in any event, the great powers should possess higher standing and greater influence in it than the smaller powers, President Wilson insisted that the League must be 'general,' affording the same protection to small peoples as to big.

Partly as a result of his address to Congress, a British foreign office committee which had been formed at the instance of Lord Robert Cecil in 1916, and had worked under the chairmanship of Sir Walter (afterwards Lord) Phillimore, made to the British cabinet on March 28, 1918, a report of which a copy was sent confidentially to President Wilson. It was used by him in preparing his own draft of a League Covenant. In July, 1918, Colonel House submitted to President Wilson another draft which was likewise based in part on the report of the Phillimore

Committee. With the help of it President Wilson wrote out a second draft of his own, which he revised severely after reading a pamphlet, dated December 16, 1918, in which General Smuts had outlined proposals for a League. In January, 1919, when the Peace Conference was about to assemble in Paris, President Wilson began to work upon a third draft so that it might serve as a basis for discussion in the League of Nations Commission at the Peace Conference. But, as he was unable to complete this draft to his own satisfaction, he agreed that the Commission should use instead a joint scheme drawn up by the British and American legal experts, Cecil Hurst and David Hunter Miller, who had at their disposal all the earlier documents as well as a draft convention written by Lord Robert Cecil.

At the first plenary session of the Peace Conference in Paris on January 18, 1919, it was unanimously resolved that the establishment of a League of Nations should be the first point on the agenda of the next session. A League of Nations Commission of the peace delegates was



GENERAL SMUTS

Jan Christian Smuts, born at Bovenplaats, Cape Colony, in 1870, succeeded Botha as premier of South Africa in 1919. His proposals for a League of Nations influenced President Wilson in a draft he was preparing.

Photo, Russell

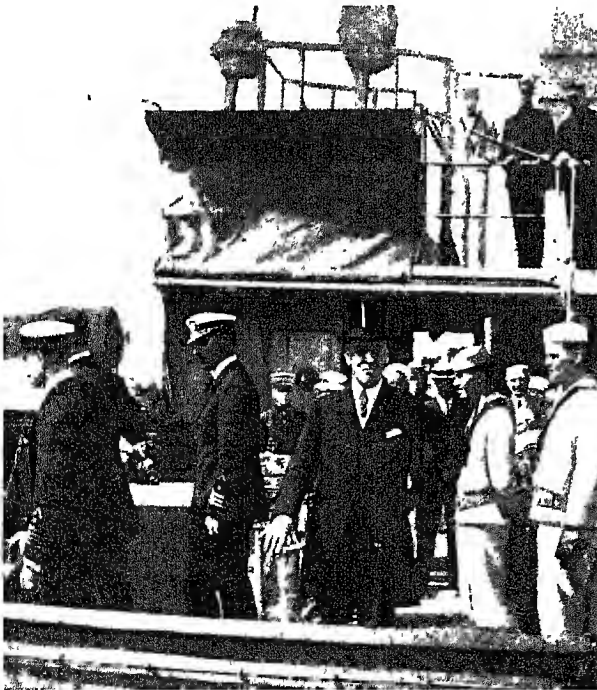
therefore appointed to draw up the Covenant. All the principal Allied and Associated Powers were represented on the commission, Lord Robert Cecil and General Smuts being the delegates of Great Britain, President Wilson and Colonel House of the U.S.A. and Léon Bourgeois, with a legal expert, of France.

In order that its proceedings might not delay the drafting of the Peace Treaty itself, the Commission sat at night, from February 3 until March 14, in the room of Colonel House at the Hôtel Crillon. It took the Hurst-Miller project and an official French plan as the groundwork of its deliberations. The most serious hitch came on February 11, when President Wilson flatly declined to accept the French demand for the creation of an armed international force that should operate under the executive control of the League. He claimed that the constitution of the United States did not permit of any such limitation of its sovereignty; and Lord

Robert Cecil took a similar view in regard to the British Empire. Not without difficulty could the French be persuaded to desist from their demand which, they held, could alone prevent the Covenant from being a philosophical treatise devoid of practical authority. They consented, however, to waive it in time for the draft Covenant to be completed on February 13, and to be read to the second plenary session of the Peace Conference on February 14. The conference adopted it, and President Wilson left Paris that evening on a brief visit to the United States.

At that moment it was still undecided whether the Covenant should stand by itself as a separate international convention or whether it should be embodied in the Peace Treaty. President Wilson's own views upon this matter had varied from time to time. He had at first objected to the formal constitution of the League, and had insisted that the League must develop gradually. Yet, on reaching Paris in

December, 1918, he had withdrawn the American representatives from the various inter-Allied organizations that might have served as a working nucleus from which a full League could grow. Another point of difficulty was that, if the Covenant were embodied in the Peace Treaty, neutral states might be unable to sign it, though they could sign a separate convention. To the actual wording of the draft Covenant President Wilson's own contributions were his demand that the new European states formed as a result of the war should give equal treatment to all the racial and religious minorities within their boundaries; and that each member of the League should have the 'friendly right' to draw the League's attention to any circumstances likely to disturb international peace or the good understanding between nations upon which peace depends. He accepted the draft Covenant as a whole



PRESIDENT WILSON SAILS FOR AMERICA

The League of Nations Commission appointed at the first plenary session of the Paris Conference in 1919 met a serious obstacle in President Wilson's refusal to agree to an armed international force. The Covenant, without this clause, being adopted, President Wilson departed to visit the U.S.A.

Photo, Underwood & Underwood

and seems not to have imagined, when he sailed for America on February 15, that it would require serious amendment.

But on reaching the United States he found that opposition to him and to the Covenant had become strong in the American Senate, of which the majority was controlled by the Republican party, whereas he and his administration were Democrats. The election of this hostile majority had been due in part to resentment of an appeal which President Wilson had made to the American electorate in October, 1918, to support candidates favourable to the Democratic administration in the elections then impending. This departure from the party truce which had existed since the United States entered the war gave deep offence, and the election resulted in a Republican victory. Further resentment was caused when President Wilson excluded leading Republicans from the American delegation to the Paris Peace Conference.

Consequently the president found the Republican senators inclined to reject the draft Covenant which the Peace Conference had adopted.

Friction with the Republican Senators Instead of appeasing them he defied them and, before returning to Paris in March, 1919, declared in a speech at New York on March 4 that when the Peace Treaty had been completed the Covenant would be so interwoven with it that the one could not be separated from the other 'without destroying the whole vital structure.' He evidently thought it impossible that the American Senate would go so far as to reject the Peace Treaty itself.

This quarrel between the president and the Republican senators was destined profoundly to affect the Covenant, the Peace Treaty and the character of the new Europe which the Paris Conference was creating. On reaching Paris President Wilson insisted not only that the League Covenant should be embodied in the Peace Treaty and be binding upon all its signatories, but that the Covenant itself should be so amended as to make it less distasteful to American opinion. Thus the strong position which he had previously held as arbiter and defender

of exalted principles was weakened, and his attitude became that of a petitioner and a bargainer. By asking the other delegations to the Paris Peace Conference to make concessions to his own domestic political requirements, he enabled them to wring concessions from him in their turn; and the Peace Treaty, instead of being a work of justice, became, in many respects, a compromise between conflicting interests and appetites. The Peace Conference complied with his wishes that the Covenant should be incorporated in the treaty, that it should be amended so as to exclude the domestic questions of signatory states from the control of the League, that members should have the right to withdraw from the League on two years' notice, and that the American Monroe Doctrine should be explicitly recognized in the text of the Covenant. But this compliance was purchased at heavy cost to the framework of peace and to the League of Nations itself.

President Wilson sought consolation in the thought that, however defective the Peace Treaty might be, the League of Nations would provide means of amending it gradually without recourse to war, and that the influence of the United States in the League could always be brought to bear on behalf of justice. But when the Peace Treaty was completed and signed, he found that the American Senate preferred to reject it altogether rather than accept the Covenant, despite the alterations which had been made in it to placate American feeling. A compromise might have been feasible if President Wilson had been willing to assent to certain reservations which the Republican senators proposed to attach to the Covenant; yet he, who had made so many compromises in Paris, stubbornly refused to enter into an additional minor compromise with his political opponents at home. Therefore the American Senate rejected the Peace Treaty. And when the League of Nations was established, the United States held aloof from it.

Thus an institution that could not have been created without American initiative and support was forsaken by the United

States; and, as a crowning irony and departure from the idealism which President Wilson had entertained and professed, his country proceeded to make with Germany a separate peace treaty from which the League of Nations was eliminated and in which all the concessions which President Wilson had made, against his better judgement, to the governments of the European Allies were retained.

This paradoxical outcome of the peace negotiations has tended to obscure the part played by the United States both in creating the new American contribution to the Victory Europe and in establishing the League of Nations. Though

the sacrifices of the European Allies were incomparably greater than those of the American people, though they bore the full burden of the war for two and a half years before America entered it, it is obvious that without American assistance the war might not have been won. In any event the victory of the Allies would have been delayed and their losses heavier. If the military contribution of the United States to the Allied triumph was comparatively small, its financial and moral contributions were decisive. President Wilson's answers to the German and Austrian appeals for an armistice and peace in the autumn of 1918 went far to shake the spirit of the German and Austro-Hungarian armies. His firm refusal to treat with Austria-Hungary at the end of October, 1918, shattered the Hapsburg monarchy, and, in shattering it, precipitated the collapse of Germany also. Among the new or re-born states of central and south-eastern Europe, three at least owed to him the full recognition of their right to national unity and independence. No European ally championed so resolutely as he the national causes of Czecho-Slovakia, Jugo-Slavia and Poland.

While it is true that the liberation and independence of these nations had been, in greater or lesser degree, contemplated in the war aims of the European Allies before America became a belligerent, those aims were too vague to ensure a thorough reorganization of Europe. With some reason the Allies thought it more urgent to win the war than to make up their minds

beforehand what they would do when the war had been won. With less reason they failed to perceive that a clear statement of their war aims would help them to win the war, because it would encourage all the subject peoples of Germany and Austria-Hungary to strive for liberation. The Allies doubted, indeed, whether their main object should be solely the military defeat of the enemy or the political transformation of Europe so as to ensure peace in future. They only began to define their war aims when President Wilson asked them in December, 1916, to state clearly what they were fighting for.

At that time President Wilson's own ideas were hazy. Neither he nor the Allied governments then understood that the liberation of the races subject to the Hapsburg crown was an indispensable condition of the military and political defeat of Germany. They hoped vaguely for a restoration of Polish unity, but they felt it impossible to demand Polish independence, inasmuch as Russia, an Allied power, ruled over the greater part of Poland. They imagined, and continued to imagine until within a few months of the end of the war, that the dismemberment of Austria-Hungary could be avoided and that it would be enough if it were to detach itself from Germany.

An essential feature of the old Europe had been the subjection of peoples, once free, to the domination of Germany, Russia and Austria-Hungary. Each of these powers possessed a part of Poland, and each was interested in preventing the re-birth of a united and independent Polish state. Germany held Alsace and Lorraine, much of which was French at heart, and also some Danish districts whose inhabitants aspired to reunion with Denmark. Austria-Hungary held in bondage the Czechs of Bohemia and the Slovaks of Hungary, the Czechs having enjoyed independent national existence for seven centuries before they were crushed by the Hapsburgs in 1620 and being eager to regain their lost freedom. Austria and Hungary between them kept some 8,000,000 South Slavs in subjection and were determined to prevent their

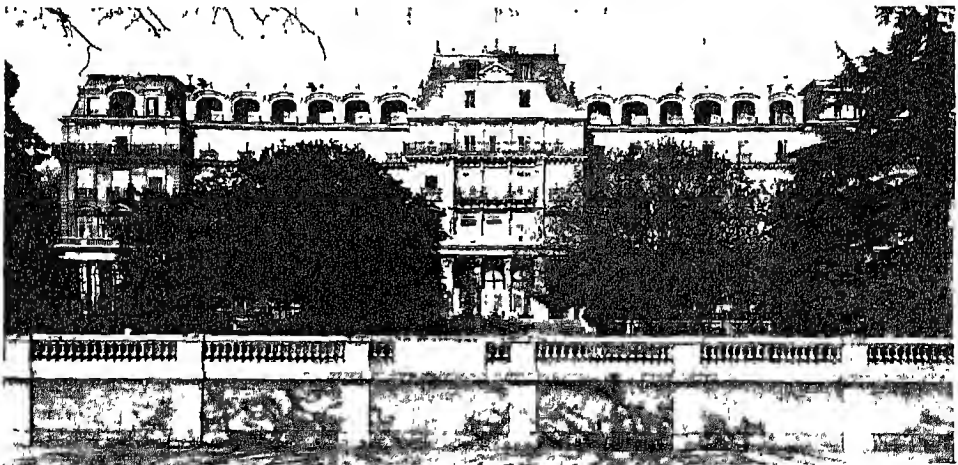
union with Serbia. Hungary likewise oppressed more than 2,500,000 'Roumanes' in Transylvania and was determined that they should not join their kinsmen in the kingdom of Rumania. In alliance with Germany, the Hapsburg monarchy formed the main link in the chain of pan-German ambitions, of which the aim was to establish German ascendancy from Hamburg to the Persian Gulf. Unless this link could be snapped Germany would win the war; and the only way to snap it was to let loose the explosive forces of the subject peoples.

Tardily, yet earlier than most of the European Allies, President Wilson understood this fact. He understood also that the association of all these liberated peoples with each other, and with the rest of the world, in a general League of Nations under a comprehensive Covenant might be a means of neutralising to some extent the drawbacks of 'Balkanising' central Europe by the creation of a number of small new states. His insistence that the first act of the Peace Conference should be to establish such a League entitles him to rank foremost among the founders of the new Europe and of the League itself.

The actual terms of the League Covenant may be briefly summarised. They are laid down in a preamble and twenty-

six articles. The preamble states that the signatories of the Covenant agree to promote international co-operation, and to achieve international peace and security, by accepting the obligation not to resort to war; by prescribing just, open and honourable relations between nations; by establishing international law as the rule of conduct among governments; and by maintaining justice and a scrupulous respect for treaty obligations in the dealings of organized peoples with one another.

The first article defines the conditions of membership of the League and of withdrawal from it. The second, third and fourth articles state that the League shall act through an assembly and a council with a permanent secretariat, the Assembly to consist of representatives of the members of the League, and the Council of permanent representatives of the principal Allied and Associated Powers, together with representatives of four other members of the League to be elected by the Assembly. (The number of these elected representatives was later increased to ten.) The fifth article states that the decisions of the Council and the Assembly shall be unanimous except in regard to procedure or to the appointment of committees to investigate particular matters,



TEMPORARY HEADQUARTERS OF THE LEAGUE OF NATIONS AT GENEVA

The covenant of the League of Nations, which was signed by the Allied and German delegates on June 28, 1919, established Geneva as the League's seat of government. Since then many plans have been considered for the construction of a building to serve as the League's permanent headquarters. Meanwhile, it has pursued its operations in this building, formerly the Hôtel National.

A tablet in memory of President Wilson can be seen in the foreground.

Photo, Boesch, Geneva

when decisions may be taken by a majority. The sixth and seventh articles authorise the creation of a secretary-general with a permanent staff at the seat of the League, which is fixed at Geneva.

The eighth and ninth articles recognize that the maintenance of peace requires the reduction of national armaments to the lowest point consistent with national

Reduction of armaments safety and with the enforcement of international obligations by common action.

The League Council is therefore instructed to formulate plans for the reduction of armaments, taking account of the geographical situation and the circumstances of each state, such plans to be subject to revision every ten years, and a permanent commission to be constituted to advise the Council on military, naval and similar questions. By the tenth article the members of the League undertake to respect and to preserve against external aggression the territorial integrity and the existing political independence of all members of the League, the Council being instructed to advise upon the means of fulfilling this obligation in case of need. The eleventh article declares that any war, or threat of war, whether immediately affecting any of the members of the League or not, is a matter of concern to the whole League, and empowers the secretary-general to summon a meeting of the Council in case of any emergency that is brought to his notice by any member of the League. It also bestows upon each member the friendly right of bringing to the attention of the Assembly or the Council any circumstance whatever that may threaten international peace or the good understanding of nations on which peace depends.

Under the twelfth and thirteenth articles the members of the League agree to submit either to arbitration or to inquiry by the Council any dispute between them that may be likely to lead to a rupture, and they agree further that they will in no case resort to war until three months after an award by the arbiters or a report by the Council, the award having to be made within a reasonable time, and the report not later than six months after the submission of the dispute to the

Council. The fourteenth article instructs the council to take steps to set up a permanent court of international justice which shall be competent to hear and decide any dispute of an international character that may be submitted to it and also to give an advisory opinion upon any question referred to it by the Council or the Assembly. In default of arbitration, members of the League agree by the fifteenth article to submit any dispute between them to the Council, which shall endeavour to settle it and shall, in any case, make and publish a report containing a statement of the facts and recommendations that may be deemed just and proper. The members of the League agree that they will not make war upon any party which complies with the Council's report; though they reserve to themselves the right to take whatever action they shall consider necessary in case the Council fails to make a unanimous report, the assent of parties to the dispute not being necessary to unanimity.

By the sixteenth and seventeenth articles the members of the League undertake immediately to sever all trade and financial relations with any member of the League that resorts to war in

defiance of the Covenant, and to prohibit all **Financial and economic sanctions** personal or financial intercourse between their nationals and the nationals of the Covenant-breaking state and those of any other state, whether it be a member of the League or not. The members of the League will give each other mutual support in this financial and economic boycott and will take the necessary steps to afford passage through their territory to the forces of any members of the League which, upon the recommendation of the Council, shall co-operate in protecting the Covenant of the League. The eighteenth article places upon all members the obligation to register with the secretary of the League every treaty or international engagement into which they may enter, and declares that no such treaty or engagement shall be binding until it is so registered. The nineteenth, twentieth and twenty-first articles empower the League Assembly to advise

members of the League to reconsider treaties which have become inapplicable and to give consideration to international conditions likely to endanger the peace of the world. The members of the League agree to abrogate all obligations and understandings inconsistent with the terms of the Covenant, except treaties of arbitration or regional understandings like the Monroe Doctrine, of which the object is to secure the maintenance of world peace.

The twenty-second article places colonies and territories inhabited by backward peoples under the trusteeship of the League, and grants mandates for their

**Responsibility of
mandatory powers** protection to those advanced nations which can best undertake the responsibility of protecting such colonies and territories, the mandatory powers being required to render an annual account of their stewardship to the Council. The twenty-third to twenty-fifth articles engage the members of the League to secure and maintain fair and humane conditions of labour for men, women and children, and to treat justly the native inhabitants of territories under their control; empower the League to keep an eye on the traffic in women and children as well as upon the trade in opium and other dangerous drugs, and in arms and munitions; authorise it to foster and maintain freedom of communications and of transit, and to organize the prevention and control of disease in cases of international concern, co-operating to this end with Red Cross organizations. Finally, the twenty-sixth article lays down the procedure to be followed for amending the League Covenant.

The Covenant was signed by thirty-one Allied powers (of whom three failed to ratify the Peace Treaty and therefore lost their membership of the League) and by thirteen neutrals. Fourteen states were subsequently admitted to membership, including the former enemy states, Austria, Bulgaria, Hungary and Germany. The principal absentees are the United States, Russia and Turkey; and Brazil has given notice of withdrawal.

In accordance with the Covenant and before the rejection of the Peace Treaty

by the American Senate, the president of the United States summoned a first meeting of the League Council in Paris on January 16, 1920, and the first Assembly at Geneva in the following November. In view of the disturbed state of Europe these meetings attracted little attention, and the early stages of the League's work passed almost unnoticed. Yet, besides forming its own Permanent Secretariat and organizing the Assembly and the Council, the League convened a financial conference at Brussels—the first really important international gathering after the war—and set about creating a permanent court of international justice. On the basis of principles unanimously laid down by the Brussels financial conference, the League was invited to undertake the financial reconstruction of Austria in 1922 and of Hungary in 1923. The success of its efforts in both these countries encouraged American and European financial experts to seek a solution of the German reparations



GERMANY ENTERS THE LEAGUE

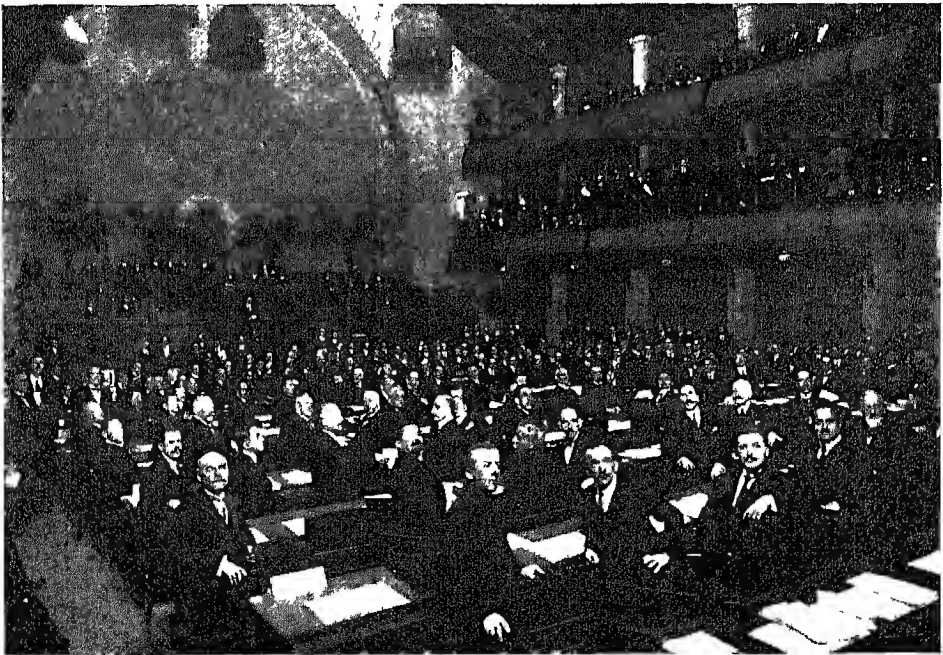
On September 10, 1926, Germany was admitted to membership of the League of Nations. The German foreign minister, Herr Stresemann, here seen speaking at Geneva, was one of the authors of the Locarno Pact.

problem, with the result that the 'Dawes scheme' was worked out and adopted. In addition, the League took in hand matters appertaining to international law and arbitration; and, as soon as it had established the Permanent Court of International Justice at the Hague, it appointed a committee of lawyers to deal with the codification of international law.

In organizing the Permanent Court of International Justice the League was able to overcome a difficulty which had proved insuperable at the first and second peace conferences that were held at the Hague in 1899 and 1907. Then it had been found impossible to agree upon a method of nominating and electing the judges of a permanent court. The existence of the League Council and Assembly provided a means of ensuring that neither the great powers nor the small should be unduly favoured in the selection of candidates for judgeships, and that the eleven judges and four deputy-judges who compose the court should be chosen with every guarantee of

impartiality. It was arranged that these candidates—representing fifteen different nations, including the United States—should be balloted for separately in the Council and in the Assembly of the League, and that candidates obtaining an absolute majority of votes in each body should be elected. Thus the great powers, through their position as permanent members of the Council, were able to check unjustified claims on the part of smaller powers; while the smaller powers, by their numerical preponderance in the Assembly, could similarly neutralise any undue influence over the League as a whole on the part of the great powers.

In the first election, which was held in 1921, this system worked well. The judges were elected for nine years, to hold office until 1930. They form a court of law, not a tribunal of arbitration, and are directed to base their decisions on legal principles in the light of treaties and international practices and precedents.



AT THE FIRST SESSION OF THE LEAGUE OF NATIONS AT GENEVA

On November 15, 1920, the first Assembly of the League of Nations met in the Salle de la Réformation in Geneva, proving the truth of the remark made by Paderewski, who was present, that 'the League' Hymans (Belgium), who presided, was elected definite president. A prominent figure was Robert Cecil, who supported the application for membership of Austria, Bulgaria, Albania and Azerbaijan, but declared that he did not wish Germany to be admitted.

Photo, F. H. Julien, Geneva

All states may bring cases before the court, but no state can be compelled to submit to its jurisdiction unless provision to that effect has been definitely made by treaty, or unless the case concerns two states which have signed what is known as the 'optional clause' of the statutes of the court that binds them to accept its jurisdiction.

Since its foundation the court has been busily engaged and has amply proved its value. The need for some international institution of the kind had long been clear and there was a large measure of agreement upon the functions it would discharge. The chief difficulty lay in establishing it; and without the League it might not have been established. But the worth of the Assembly, the Council and the Permanent Secretariat of the League was more problematic. The Assembly was conceived as the League parliament, and the Council as a sort of cabinet which would sit in public and act as the executive authority. But the Permanent Secretariat was originally looked upon merely as a clerical staff whose members would prepare the work for the Council and the Assembly but would have little authority or influence of their own.

President Wilson never imagined that the Permanent Secretariat would possess any real importance. His only idea was that Venizelos, the prime minister of Greece, should be the first secretary-general. This was found to be impracticable and the appointment was given to Sir Eric Drummond, who had been private secretary to Sir Edward Grey and to Balfour at the British foreign office. But it soon came to be recognized that the Secretariat is as weighty a part of the League as the Council or the Assembly, and that it exercises constant influence. Save when convoked in special session,

the Assembly meets only once a year. In ordinary circumstances the Council meets four times—in September, December, March and June—though it may be convened at any moment in case of emergency. The Secretariat, on the other hand, works day in, day out, throughout the year, and really discharges the functions of an international foreign office, with the secretary-general in the position of a permanent under-secretary of state.

The precedent for its creation was set, to some extent, by the temporary secretariat which sprang up around the Supreme War Council of the Allies in the later stages of the war; but whereas this war secretariat consisted of officials lent by a number of nations and working together temporarily at Versailles, the Permanent Secretariat of the League is much more than a collection of individuals from



SIR ERIC DRUMMOND

The first secretary-general to the League of Nations was Sir James Eric Drummond, appointed in 1919. He had previously served in the Foreign Office and as secretary to H. H. Asquith.

Photo, Russell

various countries. It forms a unique international body. From the secretary-general downwards, its members serve the League, not any individual member of the League. They are drawn from nearly every nation belonging to the League—and from the United States, which holds aloof from it. They are appointed and paid by the League and their whole duty is to the League.

The Secretariat is divided into various sections, each of which has its own special sphere of work. One section is political; another deals with technical organizations; a third watches over racial minorities; a fourth supervises colonial mandates; a fifth looks after international health, while others deal with social questions, publicity, legal points and international armaments. The head of a section may be a Frenchman and the principal members of his staff British, Italian or Swiss. Or he may be Japanese with Polish, Dutch, Norwegian, Spanish,

Czecho-Slovak or Greek assistants. The results are a constant interchange of different points of view and the development of a really international outlook inspired by loyalty to the ideal of the League.

The relationship of the Secretariat to the League may be compared broadly to that of the government departments in Whitehall to the British parliament and cabinet—with the important difference that, while the British parliament and cabinet meet frequently,

Functions of the League Parliament or the Secretariat Assembly, and the League cabinet, or Council, meet only at stated intervals. This circumstance places upon the Secretariat far greater responsibility than usually devolves on British government departments. The routine duties of the Secretariat naturally resemble those of any other official organization. Every decision of the League, and every duty laid upon it by the Covenant, entails correspondence and administrative work for the staff. But questions neither contemplated by the Covenant nor decided by the Assembly or the Council constantly arise, and need to be dealt with promptly. On their own initiative the secretary-general and the heads of sections deal with them, if only for the purpose of obtaining information and of preparing reports for the guidance of the Council.

This very process of inquiry may dispose of alleged grievances before they reach the Council. Claimants are invited to lay full information in support of their claims before the League officials at Geneva, so that their respective cases may be prepared for consideration by the Council. In course of this preparation exaggerated or ill-founded arguments are apt to disappear. Sometimes claimants discover at Geneva that their case is not so strong as it seemed to them in the excited atmosphere of their own countries, and that, after being pruned down to what is essential, the difference between them and their opponents is smaller than it appeared at first sight to be. Then the League officials may bring the contending parties together and help them to reach a settlement without troubling the Council.

When serious disputes or difficulties are brought before it, the Council decides upon the procedure to be adopted in dealing with them. One of the earliest of such disputes concerned the Åland Islands which, in the general readjustment of the Baltic after the war, were claimed both by Sweden and by Finland (see page 488o). Both Sweden and Finland accepted the League's finding; but the efforts of the League to settle the dispute which arose in 1920 between Poland and Lithuania (see page 4882) were less successful.

In the conflict between Poland and Germany in regard to Upper Silesia, on the other hand, the League succeeded where the Supreme Council of the Allies had failed. Feeling ran so high among the contending powers and also among the Allied powers themselves that a complete rupture seemed inevitable. The Supreme Council of the Allies then invited the League Council **German-Polish rupture averted** which the Allied powers could adopt. After minute investigation the Council put forward proposals which the Allied powers accepted; and in subsequent negotiations between Germany and Poland these proposals were taken as the basis of a German-Polish Convention, which both parties signed. It sanctions the partition of the Upper Silesian coal basin and provides that the Council of the League shall deal with some aspects of future differences and the Permanent Court of International Justice with others.

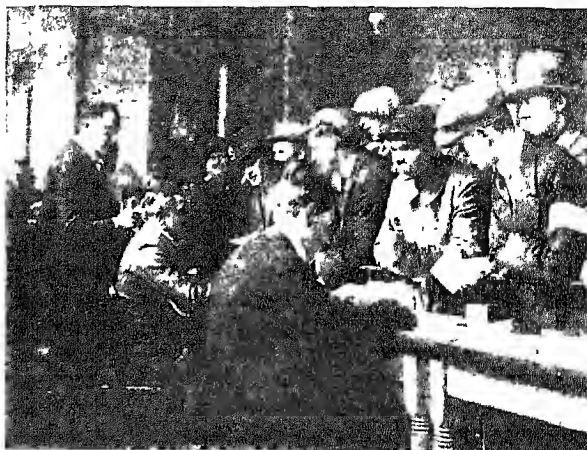
The League contrived also to compose an embittered controversy between Poland and Czecho-Slovakia over the possession of the Javorzhina district in the Carpathians, and to settle a dispute between Lithuania and Memel by arranging that the territory and city of Memel should enjoy a considerable measure of autonomy under a governor to be appointed by the president of the Lithuanian republic.

More difficult and dangerous were the disputes between Italy and Greece over the murder of an Italian general and three other Italians on Greek soil in August, 1923 (see page 4894), and between the British and Turkish governments over the frontier of Irak. In both cases the

League helped to promote peaceful settlements. But its outstanding success was gained in October, 1925, when fighting had actually begun between Greece and Bulgaria. The Bulgarian government appealed to the League, under Articles 10 and 11 of the Covenant, on the morning of October 23. A few hours later the secretary-general summoned an extraordinary session of the Council; and the same afternoon the French prime minister, Briand, as chairman of the Council, telegraphed to remind the Greek and the Bulgarian governments of their obligations as members of the League and of the serious consequences of going to war without awaiting

its decisions. He urged them to withdraw their troops within their respective frontiers pending a consideration of the dispute by the Council. On October 26 the Council called upon both parties to inform it within twenty-four hours that they had ordered their troops to withdraw. Both governments complied, and by October 29 the withdrawal was completed. The Council sent immediately a special military commission to the spot, and afterwards a commission of inquiry, which reported within three weeks, found that Greece had been to blame and recommended that the Greek government should pay £45,000 as reparation to Bulgaria. This was done and the dispute settled. In co-operation with the Pan-American Conference the League succeeded also at the end of 1928 in preventing war between two of its members, Bolivia and Paraguay, whose forces had already come to blows.

While the prevention of strife and the promotion of agreement between contending parties has been and is likely to remain a principal task of the League, it has also engaged in constructive financial work. As already mentioned, it took in hand the financial reconstruction both of Austria and of Hungary, appointing



THE FLIGHT FROM UPPER SILESIA

The fracas of 1921 between Poland and Germany over Upper Silesia caused many inhabitants of the latter to depart into Germany, for which the photograph shows passes being issued. The opposing parties were reconciled by the League, whose proposals they accepted by signing a German-Polish Convention

Photo, Willi Ruge, Berlin

in both cases a commissioner-general to supervise the application of the schemes it had recommended and inducing various powers to join in floating a reconstruction loan of some £30,000,000 for Austria and another of £10,000,000 for Hungary. The work of reconstruction was successful and two central European countries were saved from financial collapse. Hardly less striking was the contribution of the League to the establishment in Greek Macedonia of 1,500,000 destitute Greek refugees from Asia Minor. A loan of £10,000,000 was floated for this purpose. Other loans have been granted for the settlement of refugees in Bulgaria, for the consolidation of the currency in Estonia, and for the development of the free city of Danzig which is under the League's jurisdiction.

In addition to these financial achievements the League has created an advisory technical organization to watch over communications and transit between one country and another and to supervise inland waterways of international importance. This technical organization held a first conference at Barcelona in March, 1921, to which forty states sent transit experts. The conference framed an international convention that stipulates complete freedom of transit and equality in conditions of transit, and

contains a provision that disputes shall be submitted to the Permanent Court of International Justice should the technical organization of the League be unable to settle them. A second general conference held at Geneva in November, 1922, established conventions in regard to international railway traffic, the equality of shipping in seaports, the international transmission of electric power, and the development of hydraulic basins situated in territory belonging to two or more states.

Alongside of the League, though independent of it except that its budget forms part of the general budget

League's Labour Organization of the League, an international labour organization has been established at Geneva. Once a year it holds a general conference which is attended not only by delegates of the governments which belong to the organization, but also by representatives of the organized workers and employers in each country. These delegates are divided into groups, the workers' delegates from every country acting together in a 'workers' group' and the employers' delegates forming an 'employers' group.' The government delegates form the strongest group and, to some extent, hold the balance even between the conflicting claims of employers and employees.

This general conference corresponds to the Assembly of the League, while its Governing Body corresponds to the League Council. It has drawn up a number of conventions dealing with hours of labour, night work by women and children, labour conditions at sea, the compensation due to shipwrecked sailors, statutory precautions against industrial accidents and many other aspects of industrial welfare. Though none of these conventions has yet been made legally binding through formal ratification by all the countries of the world, nearly every convention has been ratified by some, and many have passed the laws which the various conventions recommend.

These subsidiary activities of the League have gone on independently of the discharge of its main task—to build up guarantees against the recurrence of war and to ensure that civilized nations shall

no longer look to armed force as the principal means of safeguarding their security or promoting their interests. The Covenant places upon the League the duty of reducing armaments. Its signatories recognize that the maintenance of peace requires that armaments should be decreased to the lowest point consistent with national safety. But since the foundation of the League it has been realized clearly that nations will not disarm unless they feel secure against attack. The armaments problem has been seen to involve a larger problem of security which, in its turn, involves the whole problem of international relations.

As soon as the League had completed its own organization it began to seek means of providing for its members stronger guarantees of security than those defined by the Covenant. A special committee, appointed for this purpose, put forward

the first concrete proposals in 1923. They took the form of a 'draft treaty of mutual assistance' under which signatory states would agree that aggressive war was unlawful, and would bind themselves to come to the help of any other state in the same continent which might be unlawfully attacked. In return for this pledge, all signatory states would accept proportional disarmament. If they failed thus to disarm, they would forfeit the protection of the treaty.

This draft treaty of mutual assistance was submitted to the members of the League, but failed to secure their full approval. At the annual Assembly of 1924, when the objections of the various governments to the draft treaty had been made known, the problem was reconsidered; and, on the basis of a joint resolution which 'was moved by the British and French prime ministers, Ramsay MacDonald and Edouard Herriot, and adopted by the Assembly, a 'protocol for the pacific settlement of international disputes' was framed and unanimously recommended by the Assembly to the earnest attention of all the governments represented. This protocol, usually called the Geneva Protocol, was founded upon a formula put forward by the

French prime minister, 'arbitration, security, disarmament.' It provided that the signatory states should recognize the jurisdiction of the Permanent Court of International Justice as compulsory in all justiciable questions; that they should agree to a system of compulsory arbitration in cases not susceptible of legal treatment and in which mediation had failed to effect a settlement; and that any state resorting to war in violation of its engagements should be automatically designated as the aggressor.

The Council of the League was empowered to declare that such a state had been the aggressor; and, pursuant to such a declaration, the other states signatory of the protocol would be under an obligation to co-operate—in the degree which their geographical positions and the

condition of their armaments might allow—in supporting the Covenant and in resisting the aggressor. The validity of the protocol was to depend upon the adoption of a plan for the reduction of armaments by a special disarmament conference which was to be summoned as soon as a given number of states should have ratified the protocol.

Like the 'draft treaty of mutual assistance' before it, the Geneva Protocol failed to secure the necessary support. A score of states signed it, but only one ratified it. Had the British government signed and ratified it, it would probably have been adopted. But it had been drawn up with the help of British delegates appointed by the Labour government; and the Conservative government, which took office a few months later, declined to accept the obligations which the protocol would have involved. At the meeting of the League Council in March, 1925, Sir Austen Chamberlain, the British foreign secretary, stated that while sympathising with the objects of the protocol, the British government could not accept the protocol itself, since it thought that a more satisfactory method would be to avoid general commitments and to supplement the Covenant of the League by making special international arrangements to meet special needs. Such arrangements, he

thought, should be framed in the spirit of the Covenant and be in harmony with the purposes of the League.

This British declaration gave the death blow to the Geneva Protocol. A solution of the problems of security and disarmament seemed farther off than ever. The protocol had, however, had the effect of eliciting from Germany a statement that she would be prepared to enter into an international arrangement of the kind it had contemplated. Consequently negotiations began between Great Britain, France and Germany for a

The Locarno agreements
'western security pact.' In October, 1925, they led to the conclusion of agreements at Locarno (see page 4893) between Germany, France, Belgium, Great Britain and Italy for the security of the Rhineland, and between Germany and Czecho-Slovakia and Germany and Poland for the settlement of disputes by arbitration. Before these agreements were made, the League Assembly adopted, in September, 1925, a resolution sanctioning efforts to restore mutual confidence by special treaties and conventions in harmony with the principles of arbitration, security and disarmament on which the Geneva Protocol had been based. Thus the Locarno negotiations were brought under the auspices of the League; and, after the conclusion of the agreements, they were formally registered with the League Secretariat.

Meanwhile the endeavour to promote international disarmament was continued. At the suggestion of the League Assembly a preparatory committee for a disarmament conference was set up, and in the light of its work a general disarmament conference was held at Geneva in May, 1927. Though its positive results were few, some progress was made in the direction of defining the difficulties to be overcome. Its attention was restricted to land armaments, since the limitation of naval armaments had been dealt with by the Washington Conference of 1921-22 and was to be further examined by another naval conference at Geneva in June, 1927. This conference ended in failure; and, in the hope of providing a basis for future agreement, an Anglo-

French naval compromise was concluded in the summer of 1928. The United States, however, rejected the compromise. Negotiations then began for a wider settlement in accordance with the Kellogg Pact (see page 4904), which was signed by fifteen nations at Paris in August 27, 1928, and has since been accepted by thirty-five other governments.

It is by its ultimate success or failure in solving the problems of security and disarmament that the League will be judged. Its general utility is beyond doubt, for its work in settling disputes, in promoting international health and sanitation, in checking the traffic in women and children, in regulating the opium trade, in repatriating more than 400,000 prisoners of war belonging to twenty-six different nationalities, and in establishing an international slavery convention to which thirty different states have adhered, could scarcely have been performed by any other agency. It exercises also supervision over the mandates granted by the Peace Treaty to Great Britain, the British Dominions, France and Belgium over the former German colonies and over

parts of Asia Minor; and it holds a measure of control over the treatment of racial minorities in countries which belong to the League. Yet all these functions are subsidiary to the main purpose for which the League was founded—promoting international co-operation for the maintenance of peace and the outlawry of war.

It is fair to ask whether the prospects that the League will be able to discharge this main function are now more favourable than they were when it was established; but the question is not easy to answer. In and by itself the League possesses little authority. Its power resides in the will of its members actively to fulfil their engagements under the Covenant. The Covenant forms part of the peace treaties; and, like the peace treaties themselves, it can be amended by general consent. Article 19 of the Covenant empowers the League Assembly to advise members of the League to reconsider treaty engagements which have become inapplicable and to take account of international conditions of which the continuance might endanger the peace of the world. What is to happen if some member



RATIFICATION OF THE LOCARNO TREATIES IN LONDON

The Locarno Conference of 1925, whereby various agreements were reached between the seven subscribing powers to the pact there formulated, was held with the sanction and under the auspices of the League of Nations. The ceremony of ratification took place at the Foreign Office, London, in the December of the same year. At the head of the table sits Baldwin with Sir Austen Chamberlain beside him. Others present represent Germany, France, Belgium, Italy, Poland and Czecho-Slovakia.

of the League thinks its treaty engagements inapplicable and draws the attention of the Assembly to them, only to find the Assembly unwilling or unable to consider a revision of them?

The defeated states, Germany, Hungary, Austria and Bulgaria, look upon some of the provisions of the peace treaties as unduly harsh, and are likely, in course of time, to bring their grievances before the League and appeal to it for redress. If they fail to secure redress, they may give notice of withdrawal

Defects of from the League, deny its
the League authority and prepare to enforce their wishes by arms.

Against them the countries interested in maintaining the treaties would arm in their turn. A new era of competition in armaments would begin, and the prospect, not to say the certainty, of another conflagration would threaten the very existence of the new Europe and of European civilization itself.

When the idea of establishing a League of Nations was first put forward, two tendencies became apparent. The first was to make of the League an international authority possessing the right and the power to enforce its decisions upon all states belonging to it. The League, thus conceived, was to be a super-state endowed with super-sovereignty, overriding the sovereignties of individual states and commanding armed forces of its own that could be used to coerce the disobedient. This conception found favour in France and was upheld by the French representatives on the League of Nations Commission at the Paris Peace Conference. The other tendency was to regard the League as a voluntary association of nations, each of which would retain absolute sovereignty over its own domestic concerns and also in relation to foreign affairs, except in so far as its international action might be circumscribed by agreed limitations.

It was the second tendency that prevailed in the drafting of the Covenant. Between the view that the League should be administered chiefly by the great powers and the principle that all its members should possess equal status and rights, a working compromise

was adopted. The principle of absolute equality involved the danger that great and powerful states might refuse to be out-voted by a number of small states, or to run the risk of seeing their vital interests misunderstood or ignored by countries unaware of the responsibilities of a great power. Therefore the greater Allies were given permanent representation on the Council of the League, and it was understood that if and when other great nations, like Germany and Russia, should join the League, they too would be entitled to permanent seats on its Council and would not be subject to periodical re-election by the Assembly like the representatives of the smaller states. At the same time a safeguard against arbitrary decisions was created by the provision that, in all its principal acts, the Council must be unanimous.

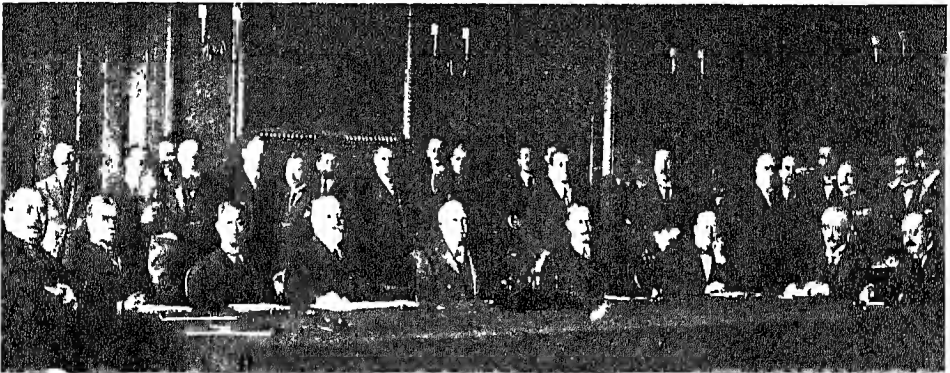
Against the danger that the requirement of unanimity might paralyse its action the League has developed a technique of its own. Questions are rarely submitted to a vote of the Council unless it is **Development of**
certain that the vote will **League technique** be unanimous. Every resource of mediation and conciliation, discussion and argument is employed in private to promote agreement between contending parties before the Council is asked to decide upon a controversial issue. For instance, there might not be unanimity if the Council were asked to decide which of two combatant states was the aggressor; but there would probably be unanimity in calling upon both to cease hostilities, and to withdraw into their own territories, pending an inquiry into their dispute. The state which should refuse to comply would designate itself the aggressor.

At Geneva the League spirit is strong; and when representatives of governments assemble there under its influence they are apt to take a more conciliatory view of a given question than they might have taken in their own capitals. It is this local tendency towards conciliation that is sometimes called the 'Geneva atmosphere.' It is a reality, not a fiction; one of those realities, indeed, which the framers of the League Covenant hardly foresaw.

The meeting of many of the foreign ministers, and sometimes the prime ministers, four times a year to transact the business of the Council at Geneva enables them informally to exchange their views, to gain personal knowledge of each other and to discuss delicate matters which, in the old Europe, they could scarcely have discussed at all. Whenever leading statesmen met before the war, they were suspected of meeting for some definite and selfish purpose—that of making an alliance against other states or of engaging in some intrigue dangerous to peace. Now they are able to meet at regular intervals, not only on the neutral soil of Switzerland, but

have a good case for presentation to the League than a powerful army to uphold a bad case. Mere insistence upon national susceptibilities or ambitions carries little weight at Geneva. In the League atmosphere the international aspect of things stands in the foreground.

The fundamental problem of peace is whether the spirit of international co-operation will prevail over selfish national aims and international jealousies. It is often asserted that the new Europe is worse than the old because it has been split up into a larger number of independent national states, each with its own ambitions, each eager to protect its separate political and economic existence



THE LEAGUE OF NATIONS HOLD THEIR FIRST COUNCIL MEETING IN ENGLAND

On February 11, 1920, the second Council Meeting of the League of Nations—the first held in England—took place in the Picture Gallery at St. James's Palace. The eight delegates who attended and Sir Eric Drummond, Secretary-General of the League, are, left to right: Cacampanos (Greece), da Cunha (Brazil), Matsui (Japan), Léon Bourgeois (France), Balfour (Great Britain), Sir Eric Drummond, Ferraris (Italy), Paul Hymans (Belgium) and Quiñones de León (Spain)

Photo, Graphic Photograph Union

under the auspices of an organization which is itself neutral save in so far as it exists for the purpose of promoting international co-operation and good will.

Yet another subtle influence has entered into the life of nations since the establishment of the League. Every government belonging to it feels that in the last resort it may be obliged publicly to defend its policy before the League Assembly, where it can be publicly answered and compelled to face the judgement of its peers. This feeling makes for prudence in diplomatic action and tends to refine international manners. Almost unconsciously, statesmen are made aware that it may be more important to

and each having an exaggerated idea of its own importance. The tendency of modern civilization, it is sometimes argued, is towards the formation of large, comprehensive units in politics as in trade and industry; the policy of setting up of a number of small new nations was contrary to this tendency and was therefore unsound. The 'Balkanisation' of Europe by the creation of countries like Finland, Esthonia, Lithuania, Latvia, Poland, Czecho-Slovakia, Yugo-Slavia and Albania, not to mention the enlargement of Rumania by the inclusion within her frontiers of a notable portion of the former territory of Hungary, is alleged to be a less favourable and

natural order of things than was the control formerly exercised over most of those territories and their peoples by the Russian and German empires and by the Austro-Hungarian monarchy. For this reason the new Europe fashioned by the war is often looked upon as less permanent and workable than the old Europe out of whose rivalries and appetites the war arose; and it is maintained that if the League of Nations attempts to protect the existence of all these new small states it will essay an impossible task.

The answer to these criticisms of the new Europe is to be found in the history of the old Europe.

Age-long movement towards emancipation It is too often forgotten that the old Europe formed in 1870-71 was by no means stable, for it lasted less than fifty years. The war and its effects cannot be understood apart from the movements which had marked the course of European affairs since the Reformation in the fifteenth and sixteenth centuries. Out of the philosophy of the Reformation and its assertion of individual freedom of conscience came, in course of time, the philosophy of the French Revolution with its assertion of the rights of man. Out of the French Revolution, which stimulated the spirit of nationality, came the movements that culminated in the unification of Germany and Italy, in the progressive emancipation of Balkan peoples from Turkish rule and in the revival of Czech and Polish aspirations to independent national existence. The second half of the nineteenth century was marked by the resurgence of one submerged nationality after another, until the problem for Europe was whether this process of emancipation should go forward to fulfilment, or whether it should be curbed by the desire of the great empires to maintain their sway irrespective of the wishes of subject peoples.

This was the issue really at stake in the Great War. It began and was symbolised by the attempt of Austria-Hungary to subjugate a small nation, Serbia, lest the kindred South Slav provinces under Hapsburg rule be irresistibly attracted to it. Characteristically, too, the war was marked in western Europe by the German

attack upon another small people, the Belgians, despite solemn international guarantees of their independence and neutrality. Great Britain fought to uphold the sanctity of these guarantees, to which she, like Germany, had subscribed; and all the Allies proclaimed the rights of small nations as one of the main principles they were resolved to vindicate. In these circumstances they could not oppose but were rather bound to favour the demands of the Czecho-Slovaks, of the Poles and of other races for national independence, and those of the South Slavs and Rumanians for national unification. The watchwords of 'self-determination' or of 'government with the consent of the governed' to which President Wilson gave currency were accepted as expressions of the democratic idea of individual freedom as against the idea of imperial organization and domination represented by Austria-Hungary and Germany.

Of these democratic ideas the League of Nations was intended to be an embodiment. The recognition it gave to small nations as **Embodiment of Democratic ideas** well as to great was a denial of the right to rule over and constrain a people in defiance of its wishes. A remedy was sought for the multiplication of national individualities by the establishment of a system of international co-operation for peace that should tend to assuage the strife of incompatible national ambitions and should seek to co-ordinate them in the service of a common ideal. Co-ordination was felt to be indispensable among nations which the growing rapidity and facility of communications were rendering more and more interdependent, and it was hoped to attain this co-ordination by voluntary agreement.

When the League of Nations was conceived, it was generally assumed that Western civilization would be democratic and that the conduct of foreign relations by democracies would be as pacific as their control by dynasties had, in the past, been warlike. But before the League was founded the Russian Empire had crumbled, and its autocratic tsardom had given place to a communist Soviet system based ostensibly on the 'dictatorship of the

proletariat,' yet thoroughly hostile to the liberal democracy of the West. Within a few years more than one member of the League forsook the democratic ideal and adopted systems of dictatorship. In Spain a military directorate overthrew the constitution and set up a dictatorial regime. In Italy the head of an armed Fascist militia gained control of the state, destroyed the constitution on which the unity of Italy had been founded, rescinded the liberty of the press, abolished freedom of opinion and proclaimed an extreme nationalist military policy. The example of Fascism and the influence of the nationalist spirit it fostered affected other countries and stimulated an anti-democratic reaction throughout Europe. The prospects of the League of Nations cannot be gauged until it is seen whether this reaction—which is inimical to the idea of international co-operation for peace upon a democratic basis—will be lasting or temporary. They could hardly fail to be affected by a definite triumph of forces incompatible with the League ideal.

The chief hope for the League lies in the general recognition that another great war might utterly destroy European civilization, and that, how-

General fear of another war even defective peace treaties may be, it is better to tolerate their imperfec-

tions until they can be removed by friendly agreement than to seek to correct them by force. Broadly considered, the new Europe is more justly framed than was the old Europe. It is better that the Polish people should be united and independent than that they should be split into three sections under Prussian, Russian and Austrian rule. It is better that the Czechs should have regained their freedom after three centuries of servitude than that they should remain unwilling subjects of the Hapsburg crown. It is better that the 2,500,000 Roumanes of Transylvania should have been enabled to join their kindred in the kingdom of Rumania than that they should continue to be oppressed by the Magyars. It is better, also, that the Serbs, Croats and Slovenes of Hungary and Austria should have been linked with

Serbia to form a united Southern Slav state than that their unsatisfied aspirations to freedom and unity should be a permanent danger to peace.

If, in the establishment of the Polish, Czecho-Slovak, Greater Rumanian and Yugo-Slav states minorities of other races were inevitably transferred in their turn to alien rule, this evil

of the peace treaties **Majority in favour** is less than the evils of the New System of which those treaties

made an end. Before the war there were 100,000,000 members of racial minorities in Europe subject to alien rule, and no means existed to improve their lot. To-day there are only 20,000,000 such members, and the League is enabled to deal with their grievances. Taken together there are probably 160,000,000 souls in Europe—excluding the people of Great Britain—who are determined not to permit any return of the old order, as against some 80,000,000 who might wish to return to it. Yet even these 80,000,000—who may be taken to include the populations of Germany, Austria and Hungary—are by no means unanimous in desiring a restoration of the former political system. A section of the German people is strongly Republican and another influential section believes the republic more conducive to its interests than a monarchy or an empire would be. The prospect that Germany will engage in aggressive war seems almost as faint as the prospect that any neighbouring people will attack Germany.

There exists, moreover, a network of protective alliances among the new states, and between some of them and France, with the express object of upholding the peace treaties. Of these alliances the most important are the agreements which bind Czecho-Slovakia, Rumania and Yugo-Slavia together in what is known as the Little Entente. There are also alliances between France and Poland, France and Czecho-Slovakia, and Rumania and Poland. All of these alliances have been registered with the Permanent Secretariat of the League of Nations. On the other hand, there exists a 'treaty of mutual friendship' between Germany and Soviet Russia, and an agreement between Hungary and Fascist Italy. More important

than any is the main Locarno Treaty, by which Great Britain, France, Belgium, Germany and Italy undertake to uphold the peace settlement in western Europe against attack from any quarter.

Nevertheless, there remain enough elements of discord to justify doubt whether the peace of Europe is entirely assured, and whether some incident may not

inflame national pas-
 Surviving elements sions to a point at
 of discord which the conse-
 quences of armed strife

would be overlooked. The Germans are not reconciled to the existence of the corridor of territory which links Poland with the free city of Danzig and gives her an outlet to the sea, since that corridor separates the province of East Prussia from the rest of Germany. Nor do they believe that the division of the Upper Silesian coalfields between Germany and Poland is just or can be lasting. The Poles, for their part, regard both the Danzig corridor and the Upper Silesian settlement as vital interests to be defended by every means in their power. Many Germans and not a few Austrians desire also the union of Germany with Austria. This desire is opposed by Czecho-Slovakia, Yugo-Slavia and Italy, whose security an Austro-German union might menace. Soviet Russia claims a right to the —mainly Rumanian— province of Besarabia which was returned to Rumania at the peace after having been held by Russia, in whole or in part, for a century. Hungary demands the restoration to her of sundry districts, partly peopled by Magyars, which were allotted to Czecho-Slovakia, Rumania and Yugo-Slavia; while the German inhabitants of what is now the Italian Tirol yearn to escape from the Italian Fascist yoke.

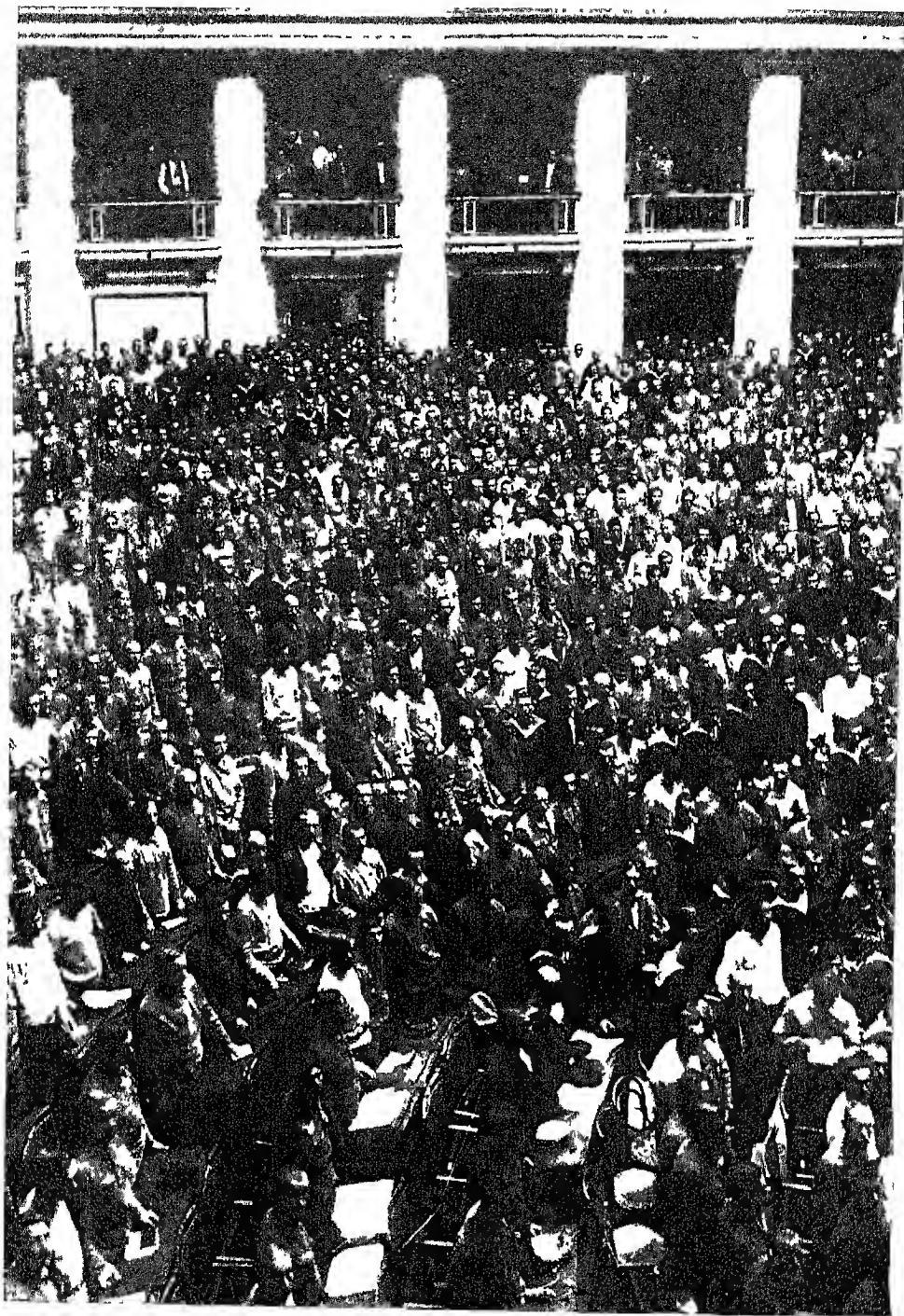
In addition to these local causes of unrest, the question of German reparations to the Allies awaits a final solution; and with the reparations question are linked the continued Allied occupation of portions of the Rhineland, and the secret armaments of Germany in defiance of the Peace Treaty.

Thus, even without the disturbing influence of Russian Soviet propaganda for a world revolution, there exist enough

points of friction to warrant caution in assuming that the future of Europe will be marked by untroubled peace. Had the League of Nations not been established, and had it not justified its existence by actually preventing armed strife, as well as in a dozen minor respects, the outbreak of another European conflagration would be but a question of time. At worst, the existence of the League, and the habit of informal consultation between European statesmen which it has fostered, should be safeguards against any sudden catastrophe. Though not all the antecedents of the Great War have yet been revealed, sufficient is known of them to substantiate the view that the war would not have broken out when it did and as it did had there existed any international agency with enough authority to summon the contending parties to a conference and to gain time for calm consideration of the issues at stake.

The League of Nations is such an agency, armed with the requisite authority. Any power which should ignore a call to state its case before the Council or the Assembly of the Justification
 League would put itself in for the League
 the wrong and would be
 likely to turn the opinion of the civilized world against it. During the war most of the belligerent nations spent huge sums on propaganda, that is to say, in attempting to influence the opinion of the world. In future, no propaganda would be likely to avail a government which had either declined to inform the League of its demands or had flouted the deliberate judgement of the League. The moral power of the League remains immense and, rightly exercised, probably decisive.

This probability has been enhanced by the conclusion of the Kellogg Pact. Without binding the United States to support the League, the pact diminished the risk that American policy would be opposed to that of the League in regard to an international conflict, since any aggressor would violate the pact and the League Covenant simultaneously. Thus the prospects of peace have been increased by the tacit association of the United States with the main purpose for which the League was founded.



SOVIET OF SOLDIERS', WORKERS' AND PEASANTS' DEPUTIES IN SESSION

This remarkable photograph shows a session of the Soviet of Soldiers', Workers' and Peasants' Deputies which was called by Lenin to Petrograd in the summer of 1917, and was the advance agent of the Bolshevik revolution in the autumn of that year. While these large congresses gave a semblance of democracy to the new regime they were composed mainly of illiterate men ignorant of the art of government, with the result that executive control was held by Lenin and his colleagues.

Keystone View Co.

THE RUSSIA OF THE BOLSHEVIKS

Swift Change from Autocracy to Communist Despotism
and its Military Success combined with Economic Failure

By F. A. MACKENZIE

Author of *Russia Before Dawn*, etc

THE Russian Revolution, judged by the extent of territory and the number of people affected, is the most tremendous upheaval the world has ever known. The empire of the tsars covered one seventh of the earth's surface and included one twelfth of the world's population. It was an established autocracy, supported by the largest army in the world, and it had behind it an elaborate, numerous and powerful bureaucracy. Within a few days tsarism and the whole machinery of tsarism were destroyed, and a few months later the entire basis of society as it had existed for centuries was overturned.

No such change could have been attempted, much less carried through, had not the conditions of national life prepared the way. Those who seek to find the real explanation of the Communist revolution must first examine the conditions of the Russian people at the time the revolution began. Autocracy, useful and effective at one stage of the national existence, had been outgrown, but the mass of the Russian people, illiterate and inexperienced in affairs, had not been prepared for constitutional self-government. Even in the days of Peter the Great, as Kluchevsky, Russia's greatest historian, has pointed out, the autocratic imposition of the will of one strong man on the mass of the nation had failed to effect permanence. But now tsarism had taken the form not of one strong man imposing his will on a backward people, but of one notoriously weak man acting through an oppressive bureaucracy.

For a hundred years the movement for freedom had been growing. Alexander I, at the beginning of the nineteenth century, was not altogether unsympathetic to constitutional reform. In 1822 officers

of the guard, most of them personal associates of the new tsar, Nicholas, made an attempt to secure constitutional government by force. December was the month when they revolted, and they are therefore known as the Decabrists. Their effort failed; five of them were hanged and many others sent to life-long exile in Chita, in eastern

Siberia. Alexander II, the 'Tsar Liberator', carried out many great reforms, culminating in

the abolition of serfdom; but he hesitated to go as far as many wanted, and hesitated all the more because reckless revolutionary parties were rising, especially in the universities. The Nihilist movement aimed to accomplish reform by dynamite. Anarchist groups planned violence. The Liberal party strove for moderation, and was at one time dominated by Hertzen, whose demands, however extravagant they seemed then, would not be counted unreasonable now, including as they did a free press, independent justice, trial by jury and a constitutional government. Youthful revolutionists, impatient at the slow progress of reform, took extreme courses. In 1866 a young nihilist made an attempt to shoot Alexander; a few years later, in 1881, the tsar was blown to pieces by revolutionary bombs in the very heart of St. Petersburg. He had already signed but had not yet issued a decree granting the desired constitutional government. After his death that decree was destroyed.

The murder of the Tsar Liberator was to put back reform for a generation. Alexander III, his successor, was defiantly reactionary and strengthened absolute autocracy in every way within his power. Reformers were sent wholesale to prison, exile or the scaffold. But still, despite all,



FACTORY WOMEN OF ST. PETERSBURG

In Tsarist days factory workers of Russia laboured for the most part under very bad conditions. Frequently housed on the factory premises, they were subjected to strict discipline. This is a drawing made in 1905 of female factory hands in their sleeping room at St. Petersburg.

the heaven was working. After Alexander's death it was thought that his successor, Nicholas II, would take a more liberal line. That expectation was disappointed. When the men of Tver presented him with an address congratulating him on his marriage, and expressed a hope that at the beginning of his reign the voices of the people and their desires would be heard, and that law would stand supreme 'above the changing views of the individual instruments of the extreme power,' Nicholas rebuked the men for their 'senseless dreams' and declared himself the champion of an unswerving adherence to the principle of autocracy.

So long as the revolutionary parties in Russia were drawn from the student, professional and aristocratic classes there was little danger from them. But the situation was changed towards the end of the nineteenth century by the rapid advance of Russian urban industry. Large factories were opened in the great cities, and these attracted hundreds of thousands of peasants to the towns. The government laid down an elaborate and beneficent system of regulations for the protection of the factory workers; but these were little more than a dead letter in most districts, because of the wholesale and general bribery of police and inspectors. There were model factories and model industrial centres as at Vladimir, but in

general the condition of the hands was very bad. Their housing in particular was almost incredibly wretched. 'Let us go to our coffins' was a common saying among them when returning home.

These large bodies of working people, drawn closely together and resentful at the conditions under which they were living, proved fuel for the fire of revolutionary teaching, and all the more so because of the refusal of the authorities to permit organized labour to form free trade unions. The town workers went back in due time to the villages and spread the new doctrines there.

The revolutionists were divided into several groups. The strongest moderate section was the Cadets, the Constitutional Democrats ('Cadet' being formed of the initial letters of their Russian name), who were largely composed of Liberals of the educated classes and who relied upon political reform. Then came more extreme bodies—the S.R.'s (Social Revolutionists), the Social Democrats and the Anarchists. The S.R.'s sprang from a revolutionary party of peasants and were terrorists, believing in an active campaign of violence against the autocracy. They organized many dynamite and other outrages and assassinated with bomb or pistol many leaders of the autocracy. The Social Democrats relied mainly upon education and organization of the town workers, so that they might be able to bring about revolution by armed revolt at the right moment. Their leader for many years was Plekhanov, one of the fathers of the Russian Social Democratic movement in the 'eighties. But he became too moderate for many of his party.

Early in the twentieth century a new leader appeared, a young exile, Nikolai Lenin by name. The party, as a result of Lenin's campaign against Plekhanov, split into two groups, the Bolsheviks, who advocated strict adherence to the

Communist doctrines of Karl Marx (see page 4985), and the Mensheviks, willing to co-operate with some moderate sections and to adjust Marxian doctrines to actual conditions. In addition, there were numerous smaller bodies. The Anarchists could not have the compact centralised organization of the other revolutionists, but were represented by numerous separate organizations in Russia and abroad, their membership varying from idealistic philosophers like Prince Kropotkin to men in such savage revolt against society that they were prepared to kill, rob and destroy at random.

In the early years of the present century the position of Russia was one of unique interest. In area, in wealth and in population the empire of the

Russia, land of contradictions tsars stood in the foremost rank of the nations. The

Russian army was the strongest numerically and believed to be one of the two most powerful in the world. The building of the trans-Siberian railway had opened up a vast and wealthy new land for development. The growth of industry had been phenomenal. The developments of mining and of agriculture had been more rapid than ever before. But the obverse showed a very different picture. The state Church, gorged with wealth, had become notoriously venal and most monasteries were centres of licentiousness. The bureaucracy throttled thought and official corruption was taken almost as a matter of course. There was no freedom of speech, no free press, no independent justice. The mass of the peasantry, nine tenths of the nation, could not read or write. Among the educated classes there had been a general discarding of the old standards of religion and morality. The younger intellectuals, charged with revolt against the autocracy and tsarism, had spread their propaganda among workers and peasants.

The first great chance of the revolutionists came during the Russo-Japanese War in 1904-5. The Japanese government, as a legitimate method of war, secretly financed and encouraged some of the revolutionary groups. When the tsarist armies and fleet were defeated in battle after battle, tremendous discontent manifested itself throughout Russia. Father

Gapon, a democratic priest, led a group of workers and peasants one Sunday in January, 1905, known henceforth as Bloody Sunday, through the streets of St. Petersburg to the Winter Palace, the home of the tsar, to present a petition to him. The processionists were stopped by lines of troops, and suddenly the order was given for the troops to fire. Very large numbers were killed and wounded. Within a few days revolt had broken out in many parts of the country. There were months of upheavals, street fighting, cruel assassinations and vindictive reprisals. The attempt at revolution ended in the autumn of 1905 by a prolonged battle in Moscow, when, after hard fighting, the revolutionists were completely defeated and most of their leaders captured.

In the midst of the struggle Nicholas made some concessions to the popular demands. Up to 1905 there had been little religious liberty. For a Russian to leave the Orthodox Greek Church was in itself a crime, rendering him liable to severe punishment. The Old Believers, a strictly orthodox sect, had been sent into exile generations before (see page 3932). It was a great step forward when the tsar,

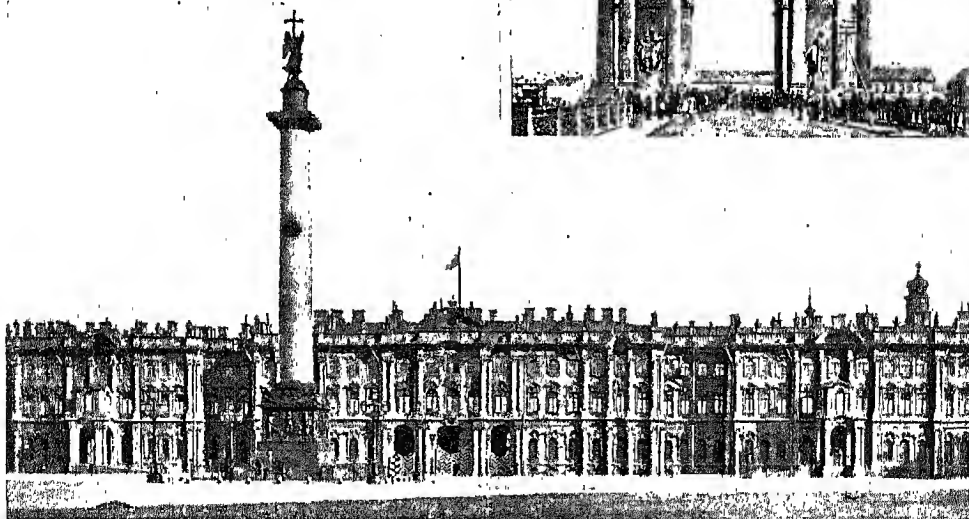


PRINCE KROPOTKIN

Prince Peter Alexeivitch Kropotkin (1842-1921) propagated his revolutionary doctrines among the Russian working classes, his followers forming an anarchist group; his *Memoirs of a Revolutionist* appeared in 1899.



On February 1 the tsar granted a belated interview at Tsarskoye Selo to representatives of the strikers. The workmen's delegates are seen in this drawing leaving the Alexander Palace placated by vague promises.



In January, 1905, the first serious movement of the impending Russian revolution began, with a strike at the Putilov Ironworks in Petrograd. The campaign was organized by a priest, Father Gapon, and on January 22 he led the strikers towards the Winter Palace to present a petition to the tsar. The approaches to the Palace Square were barred by troops, who turned a murderous fire upon the crowd. Father Gapon was badly wounded at the Narva Triumphal Arch (inset).

SCENES OF SLAUGHTER AND UNREST IN RUSSIA IN THE REVOLT OF 1905

Lower photos, E.N.A.



FOE OF THE REVOLUTIONISTS

Piotr Arkadieitch Stolypin (1862-1911) had already achieved a reputation for statesmanship when he became prime minister of Russia. His relentless campaign against the revolutionists made his name a byword for cruelty.

Photo, E.N.A.

at Easter, 1905, issued a decree permitting Russians to withdraw from the state Church and join another communion. But even then the person who had persuaded the Russian to change his faith was liable to heavy penalties, and the convert himself could be thrown into prison to be held as a witness against him. As late as 1916 every Baptist church in Russia was closed and the pastors sent to Siberia.

On October 3, 1905, the tsar signed a further decree, hailed by the press of the world as a 'charter of liberty to one tenth of the human race.' In it he promised the nation civic liberty, based on inviolability of the person and freedom of conscience, speech, union and association. A duma (parliament) really representative of the Russian people was to meet, and no law was to be made without its sanction. The first Russian parliament was opened at the Winter Palace in May, 1906.

But it was clear that the tsar was weakening in his zeal for reform. Having summoned the Duma, he set about thwarting it and depriving it of power. A merciless campaign was opened against

all suspected of sympathising with the revolutionary uprising. Hangings, torture, exile and life imprisonment became common. It was estimated that during this wave of reaction a hundred thousand people were sent to Siberia. The revolutionary organizers were hunted down. The revolutionists, or the remnants that were left of them, replied by a succession of murders of statesmen and generals. At the head of this regime of oppression was the premier, Stolypin. To this day the carriages on the railways where prisoners are shut in barred cages are known as 'Stolypins,' and hanging as 'Stolypin's neck tie.' Stolypin was shot and killed at a theatre in Kiev in 1911.

Nicholas was no man to ride a storm or to control a great people. Feeble, superficial, impatient, easily led, his closest advisers soon came to regard him as one who did not know his own mind and who could be trusted in nothing. Behind him stood his wife, the empress Alexandra Feodorovna, descended from the grand-ducal house of Hesse-Darmstadt, who was always urging him to resist reform and to keep power and might in his own hands.



RIGID BELIEVER IN AUTOCRACY

Princess Alix of Hesse married Tsar Nicholas II in 1894 and took the name of Alexandra Feodorovna. She was assassinated with her husband and other members of the imperial family in 1918. She is here seen in 1914.

Photo, E.N.A.

The outbreak of the Great War in 1914 produced a reaction in favour of Nicholas. A wave of patriotism swept the Russian people, old differences were forgotten and the tsar had once more a united Russia in his hands. Even revolutionary leaders who for years had fought hard against tsarism came voluntarily and surrendered themselves, offering to serve their emperor as he pleased. But as the war went on a slow change came over the Russian people. Corruption, extortion and bribery did their work. The traders and merchants earned universal hatred by their greedy exploitation of the nation, and in particular by their manipulation of food prices. The army, thanks to the corruption of some of its leaders, went into the field with

many of its men unarmed. Hundreds of thousands were ruthlessly slaughtered though had still work. Prisoners in German camps were left to starve. The people felt that their self sacrifice and the heroism of their sons were being thrown away by the incompetence of their rulers.

The popular reverence for the imperial throne had already been destroyed by the folly of the empress in her worship of an extraordinary fakir, Grigori Rasputin, a character difficult to imagine in any other country than Russia. A rough, uncouth, Siberian peasant, after a wild youth he had taken to religion and proved himself a magnetic preacher and teacher.

Reports of his miracle-working qualities spread abroad. He could heal the sick

of body as well as of mind. In time he reached St. Petersburg, where he had an entrée to some of the greatest houses. The empress, who had been greatly disappointed because she had no son, sent for Rasputin. He spoke to her as a seer or prophet, and is alleged to have said 'Go to Sarov, little mother, pray over the sacred relics of St. Seraphim, and that which you wish shall come to you.' While the truth of this prophecy may be questioned, it is a fact that in the following year a son was born.

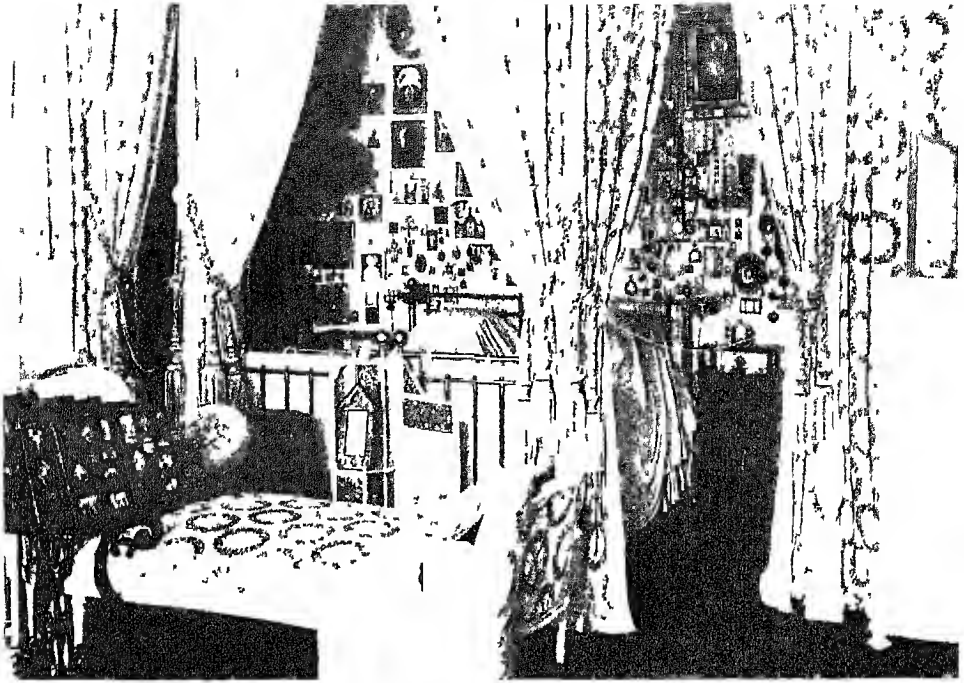
Rasputin was now high in favour with the empress and the court, and nothing was too good for him. He was a man of double life, and while on this one side he preached and worked as a saint, he was also amazingly licentious. Idolised by the most exclusive Russian society, he still retained his peasant ways, bullied his myriad women worshippers, ate out of dishes with his fingers and spoke roughly to the highest. There were many women 'disciples' in his house, his harem. He made many women of the greatest families his willing



EVIL GENIUS OF AN EMPRESS

By his mystical and hypnotic gifts Grigori Rasputin (1873-1916) the illiterate son of a Siberian fisherman, obtained a profound influence over the Russian tsaritsa. His consequent political power proved so dangerous a force that his assassination was encompassed by Russian nobles in 1916.

From Youssoufoff, 'Rasputin,' Jonathan Cape, Ltd



THE TSARITSA'S BEDROOM: A KEY TO ONE ASPECT OF HER CHARACTER

Rasputin's uncanny influence over the many women who fell under his powerful spell is reflected in the religious obsessions that afflicted his most highly placed victim—the tsaritsa Alexandra Feodorovna herself. The walls of her bedchamber in the summer palace at Tsarskoye Selo were almost covered with religious pictures, crucifixes and images. The Soviet maintains it in this condition.

Photo Topical Press Agency

victims. He preached that you must sin to obtain forgiveness. 'How can we repent if we have not sinned?' was his doctrine, and he would show his victims how to sin.

The tsar's ministers were alarmed about the influence Rasputin had over the empress and, through her, over the emperor. During the Great War the scandal of his influence became more and more marked. He was now the power behind the throne, dictating political appointments, even of ministers and generals. Grand dukes, statesmen, close relatives begged the emperor to rid the court of him. It was suggested, although probably falsely, that he was in German pay.

The emperor struck a fatal blow at his own prestige by dismissing, on the advice of Rasputin, the grand duke Nicholas from the post of commander-in-chief of the army and assuming that office himself. In the autumn of 1917 there was great distaste in the cities of Russia. The whole country was suspicious of the empress and of Rasputin. A prominent conservative



GRAND DUKE NICHOLAS

The grand duke Nicholas, created commander-in-chief of the Russian armies by Nicholas II upon the outbreak of the Great War, conducted operations against the Austro-Germans until 1915. Rasputin's influence secured his dismissal, and the tsar took over the high command.

politician, Purishkevitch, rose in the Duma and caused a great sensation by eloquently pleading with the ministers to go to the tsar and beg him to rid the country of this curse. Next day, among the visitors who congratulated Purishkevitch was one who pleaded for action. 'Why not let us kill this foul thing?' asked Prince Felix Yusupov. Within a few days a plan was arranged. The plotters were not revolutionists but extreme imperialists and conservatives who believed that Rasputin's power threatened tsardom itself. Chief in rank among them was the grand duke Dmitri, cousin to the tsar.

Prince Yusupov invited Rasputin to come late at night to his family palace on the Moika Canal, telling him that there would be a feast and that he would meet a lady, a countess, whom he had often desired. Here he drank wine heavily charged with cyanide of potassium, but it scarce seemed to injure him. He ate cakes packed with enough poison to kill a score of men, with little apparent result. After a long and anxious time of waiting,



PRINCE FELIX YUSUPOV

A foremost participator in the conspiracy which rid Russia of Rasputin's evil influence was Prince Felix Yusupov. It was to his house that the malign favourite of the empress was invited for the specific purpose of being done to death.

Photo, Hay Wrightson



AT THE LAST RUSSIAN DUMA

Created in 1905, the Russian Duma (see page 4442) or representative state council of the empire was swept away by the revolution of November, 1917. This photograph shows a sitting shortly before its final dissolution. In the chair is president Rodzyanko, beneath a portrait of Nicholas II.

Photo, Illustrations Bureau

Prince Yusupov shot him, and he and his friends left him for dead, only to see him a little later crawl across the room and try to escape into the street. Purishkevitch, following him, shot again, and he finally killed him. His body was taken to a bridge outside the city and thrown under the ice. When the news became known, the empress was torn with grief, but the nation rejoiced.

The killing of Rasputin was the final spark that lit the flames of revolution.

The overthrow of tsardom was the result not so much of a deliberate plot as a spontaneous uprising of the people against a feeble, inept and intolerable tyranny. In December, 1916, the grand duke Paul begged the tsar to grant Russia a constitutional government. The prime minister, Rodzyanko, himself

a moderate reformer, repeatedly dared the tsar's rebuffs to place before him the urgent necessity for action. But Nicholas was adamant. He seemed in these vital days more like a drugged man, incapable of listening to anything but the empty, insistent demands of the empress that he should be strong and unyielding.

The Duma, which during the preceding year had been the scene of many open protests, reassembled on February 27, 1917, and its members met with a determination not to allow their assembly to be broken up until something real was done. In Petrograd (to give the city the name bestowed on it when the Great War began) the food situation was growing daily more serious, and long queues of people waited outside the bakers' shops for bread. There was a disturbance in one of these waiting crowds and the police fired on the people. Within a few hours a general strike was declared in all

factories, and all schools in the city. The police tried to put the people down, but soldiers began to take the side of the people and Cossacks fought mounted police. Big processions marched defiantly through the main thoroughfares. Policemen posted in houses and at critical points with machine guns fired on the crowds; but the moment had gone by when the people could be further terrorised.

On Monday, March 12, nearly the whole of the Petrograd troops, led by the Volhynian Guards regiment, came out on the side of the Revolution. The crowds now were beyond all control. They hunted down the police, and shot them, wherever they were found, like dogs. They opened prison doors and set the prisoners free. They captured arsenals and distributed arms. They burnt the headquarters of the political police, and when a few troops, loyal to the emperor, tried to resist them they were overwhelmed.



REVOLUTIONARIES ASSEMBLED BEFORE THE WINTER PALACE

A crisis was reached in Russian affairs early in 1917. The gravity of the food situation gave rise to a series of strikes and outbreaks of violence, while the defection of large numbers of the soldiery to the side of the people further complicated the problem facing the government, who vainly sought a solution by terrorism. Many military uniforms can be seen in this section of a vast mob outside the Winter Palace, Petrograd. Within a week a provisional government was proclaimed and with scarcely a protest the tsar acquiesced in the demand for his abdication.

Photo, E.N.A.



A. F. KERENSKY

On the outbreak of the Revolution Alexander Feodorovitch Kerensky became minister of justice in Prince Lvov's provisional government and in July premier of the coalition government. He fled after Lenin's coup d'état in November, 1917.

That same afternoon, the Duma, whose members had remained despite an order postponing their assembly, formed a provisional government with Rodzyanko the premier as temporary president. A great council of delegates from councils of workers' and peasants' deputies, formed in the different barracks and factories, met in the palace of the Duma that evening and resolved to support the new government. The tsar's own regiment, the Preobrazhenski, threw its cause in with the people, and the grand duke Cyril and the officers of the regiment placed themselves at the service of the new government.

The Social Democrats had been at first unwilling to join the government, thinking that it was too middle-class and aristocratic, but when, two days later, the names of the members of the new provisional government were announced, it was seen that Kerensky, a young and brilliant Social Revolutionist leader, had received permission of the workers to take the post of minister of justice in it. The same evening the councils of the workers gave it their conditional allegiance.

The main programme of the new government was simple, its vital proposal being the calling of a constituent assembly, based on universal suffrage, soldiers having civil rights. The new government depended on the army, and it was a sign of

Main programme of Kerensky's government

its weakness that the soldiers of the Petrograd garrison had secured as a return for their adherence a promise that they should not be moved from the city. Another step was taken with the army as a whole that in the end destroyed it as an effective military force. The councils of the workers secured an order for the formation in every regiment of a committee composed of delegates of the rank and file which should be the real governing body of that regiment. To rule a regiment in war by a committee is as mad as it would be to seek to control a great ship in a storm by singing hymns. The Bolsheviks, already watching their opportunity, knew this, and when later on they obtained power one of the first things that they did was to abolish the committees and re-establish strict military control.

The emperor was at the front when news came to him of what was happening. He sought to send some troops under General Ivanov to Petrograd to suppress the revolution, but they were unable to reach the city. On March 15 two delegates of the provisional government met him at Pskov and demanded his abdication. He signed the decree dethroning himself with scarce a protest and named as his successor, not the tsarevitch, whose health was such that he could not live till manhood, but his brother, the grand duke Michael. The grand duke, however, said that he would not accept the throne until invited by the Constituent Assembly. The invitation never came and the Romanov dynasty joined the ranks of the rulers who have passed. The ex-tsar was sent to his palace at Tsarskoye Selo, outside Petrograd, as a prisoner at large.

The scenes that followed in Petrograd, in other Russian cities and throughout the country were amazing. The people felt that the shackles of generations had fallen off and that for the first time they were

free to speak as they pleased, write what they pleased, do almost as they pleased. Public vengeance wreaked itself on some of the police, and from the country there came news of peasant risings and of the slaying of unpopular landowners. But the amount of internal violence was comparatively small. There was general rejoicing and freedom was the word of the hour. Subject states were set free. Poland was given its long-desired independence. New measures were initiated for Finland, and even the Ukraine was granted a large measure of autonomy. The provisional government was determined to keep on with the war against Germany and her associates and to remain true to its allies. But it was already clear that the Russian army had had enough of fighting.

Vital questions of social reform awaited solution. Theorists rejoiced when the death penalty was abolished even for traitors. A few months later the commander-in-chief began to enforce it in the army against deserters, despite the reformers, and the government had to sanction it. The peasants clamoured for complete ownership of the land. Prince Lvov, who became prime minister, tried to decentralise administration as much as possible. He resigned office in July and was succeeded by Kerensky, the Social Revolutionist. Much was expected from Kerensky, whose youth and eloquence had made him a popular figure. Of Kerensky's sincerity there can be no question, but he proved wholly inadequate to rule a great nation in such a time as this. The soldiers left their games to listen to him, cheered him to the echo as he spoke, and then, when he had gone, returned to their games. It needed a Cromwell to control new Russia

drunk with the new wine of liberty, and Kerensky was no Cromwell.

The real enemies of the provisional government were not the tsarist forces, which already had almost disappeared, but the extreme revolutionists. The Bolsheviks, at that time a comparatively small group, were not satisfied with what was happening. They were not popular even among the workers, and were suspected on all sides of being German agents, working for German pay. But they set to work deliberately and systematically to undermine the provisional government. Their hands were immensely strengthened in March by the arrival of the Communist leader, Lenin, from Switzerland.



NICHOLAS II IN CAPTIVITY

Shortly after his abdication on March 15, 1917, the tsar was arrested, and with his family confined in the Imperial Palace at Tsarskoye Selo. A military escort kept observation upon his every movement indoors and about the grounds.

The return of Lenin and other extremists was made possible by the liberal policy of the new government. The exile system was swept away immediately tsardom was broken and old political offences wiped out. Men and women who had languished for years in the living tombs of Schlüsselburg or in the prison of Peter and Paul, in solitary confinement in cells where they were not allowed to raise their voices beyond a whisper, found their prison doors open and sunshine and freedom ahead. The revolutionists who had escaped to the capitals of Europe or to America could return to the streets of Petrograd in safety once more. Many of the exiles came back feeling no gratitude to the men who had set them free, but resolved to overthrow the whole basis of modern society. Lenin was their leader.

Lenin, the leader of the Bolsheviks, had lived during the Great War in Geneva, whence he had conducted a vigorous pacifist campaign, advocating the immediate laying down of arms by the workers of all nations and the ending of the war. The German secret service had already made use of his activities. When the Revolution broke out, it offered him and his friends a safe passage in a special train through Germany to Russia, and further offered to provide funds for conducting an anti-war campaign among the Russian people. These funds were actually sent into Russia through a Swedish banker. Lenin had no preference for Germany over the Allies and was opposed to the war on general principles; but he saw a chance here of using the resources of one capitalist country to help to destroy capitalism in another country, and he took advantage of it. He arrived in Petrograd in April, was given a big reception on his arrival, and at once started an active campaign against the provisional government.

Nikolai Lenin, whose real name was Vladimir Ilyich Ulianov (Lenin being a 'nom de révolution'), stands out without rival as the supreme figure of the Communist party. He was born in 1870 at Simbirsk, and was the son of a school inspector, being brought up in the ordinary surroundings of a middle-class family. As

a schoolboy he was noted as being studious, reliable and somewhat inclined to religion. His brother was hanged in 1887 for participation in an attempt on the life of Alexander III, and Lenin soon showed revolutionary tendencies. At the university of Kazan, where he studied, he was suspended at the end of a month for participating in a students' revolutionary movement. He succeeded, however, in taking his law degree four years later, but made no real effort to practise at the bar.

He went to what was then still St. Petersburg. Already a convinced Marxist and revolutionist, he came in contact with some of the older revolutionary groups there and plunged into secret illegal propaganda, writing pamphlets, speaking at secret meetings and the like. He was arrested, spent some time in prison and then went abroad to escape re-arrest.

He lived in London in poor lodgings in Bloomsbury, passing a large part of his time studying in the British Museum. Although **Lenin's life in London** able to read English, he never acquired a fluent speaking knowledge of the language. He wrote an important book, *The Development of Capitalism in Russia*, which won him a foremost place among Marxist economists. According to his disciple, Zinoviev, he spent fifteen hours a day in libraries and at books. He and some others published a paper, *Iskra* (The Spark), which became the real organ of Russian revolution. He developed under a quiet exterior a dominating and imperious personality. This element of his character caused him and his followers to revolt from the older leaders and to set up the Bolshevik party in London in 1903, with Lenin as its chief. He lived before the Great War mainly in London and in Paris, and after the war broke out, as already said, made Geneva his headquarters.

Shortly after Lenin reached Petrograd the second great figure of Communism arrived. Leon Trotsky (real name, Leiba Bronstein), son of a Jewish merchant in S. Russia, who had been exiled to the Arctic under tsarism, had made a spectacular escape and had more recently been working in Paris and New York as a journalist on a small Russian Jewish paper.

When Nicholas was dethroned, Trotsky borrowed money from his friends and set out for Russia. At Halifax, Nova Scotia, the British authorities arrested him on shipboard as a firebrand and shut him up in a camp at Amherst. He was released a little later at the request of the provisional government and allowed to proceed to Europe. Trotsky had not up to this time been a Bolshevik, but had been attempting to reconcile the two groups, the Bolsheviks and Mensheviks. At once, however, he threw himself in with Lenin. Bold, picturesque, eloquent, he immediately made his power felt. He feared nothing and nobody. The story is told that when the provisional government, forced by his attacks upon it, ordered his arrest, Trotsky waited for the soldiers to come and take him, and then spoke to them in such a way that they cheered him, carried him around on their shoulders and afterwards—took him off to prison.

The immediate group around Lenin included a number of experienced revolutionary workers. His personal assistant was a young Russian Jew, Apfelbaum, formerly a bank clerk, who had taken the revolutionary name of Zinoviev, and who was to prove himself in the years ahead

the cruellest and most extreme of all the Communist leaders. Then came Dzerzhinsky, a Pole, who had long been one of the secret organizers of revolution and who had been often imprisoned, only being set free when tsardom ended. Leon Kamenev, whose real name was Rosenfeld, was the son of an engineer in the Caucasus, and seemed more like a quiet, successful professional man than a maker of discords. Another equally strange figure was Leon Krassin, for long a prosperous engineer and chief manager in Russia for the great house of Siemens Schukert. There was a young, pale-faced, student-like figure, who might have been an artist, by name Lunacharsky, fresh from Paris. The most aristocratic member of all the group was Georges Chicherin, formerly a member of the tsarist diplomatic corps, who had thrown over family tradition and settled first in Berlin and then in London as a revolutionary organizer.

It will be noticed that all the revolutionary leaders so far mentioned were men of noble, professional or prosperous business families. The Russian Revolution, like the French, was planned not so much by the workers themselves as by men of the better educated classes who dominated the workers. Some working men, however, stood out, such as Kalinin, the son of a peasant, who had spent many years in the Putilov engineering works in St. Petersburg. Later Kalinin was given office equivalent to that of president of the Republic, and he was regarded as one of the most kindly and sympathetic figures in his party. Schmidt, the leader of the trade unions, and Zverdllov, fresh from the aggressive unionism of the Ural workers, were two other noted men from the ranks of labour.

The Bolsheviks organized committees in every factory, every regiment and almost every village to overthrow the government. They captured the Petrograd Soviet.

A number of active revolutionary plotters arrived in Petrograd during the summer from America by way of the Trans-Siberian railway, and were given strategic posts. Every man had his rifle. In July, 1917, the Bolshevik leaders formulated their programme—immediate peace, the land for the peasants and the factories for the workers. They preached class war, and by midsummer felt themselves sufficiently strong to plan an armed demonstration at the capital. On July 16 they provoked an uprising, which for the moment seemed to threaten the existence of the government. But picked troops arriving from the front saved the situation, and when the Volhynian regiment of the Guards, which had led the earlier revolutionary movement, came out against the Bolsheviks, it was clear that they had lost. Wholesale arrests followed. Trotsky was thrown into prison, and Lenin escaped into Finland. The prisons were full, and Kerensky threatened in an eloquent speech to institute a regime of 'blood and iron' against the traitors. But his severity ended in words.

The Bolshevik agitation continued in secret, and grew greater all the time on

account of the discontent of the peasantry, the increasing weariness of the nation with the war and the weakness of the provisional government. General Kornilov, the commander-in-chief, was reported to be planning a coup d'état against the Republic itself, and the restoration of the imperial family. He and Kerensky were alleged to be plotting to betray the people. In October the Bolsheviks, who had grown greatly in strength, resolved to strike again. Lenin returned secretly to Petrograd; Trotsky and other leaders had been set at liberty by Kerensky. Their plan of campaign was most carefully drawn, so carefully that many people imagined at the time that the German general staff must have been responsible for it. Vital

points were to be seized. The adherence of a large body of troops and sailors had already been won. An All Russian Congress of Soviets, the working class revolutionary organization, had been called in Petrograd for November 7.

It was expected that Kerensky, by the use of his troops, would try to scatter the gathering. Therefore, the Bolsheviks centred themselves first on winning over the garrison, particularly the machine gunners. The decision to attempt an armed rising was made by the central committee of the Bolsheviks on October 28. A military revolutionary committee, attached to the Petrograd Soviet, acted as the general staff of revolt. It appointed commissars to all sections of the Petrograd garrison,



SOWING SEEDS OF REVOLUTION IN THE RUSSIAN ARMY

Control of the army was essential to the establishment of Bolshevism, and very early in their proceedings the Bolsheviks organized committees in every regiment to detach the troops from their loyalty. This photograph shows a revolutionary captain addressing the 56th regiment in Petrograd, where most of the garrison were won over by the beginning of November, 1917. Bolshevik troops were supplied with the badge shown above—a star with the design of a hammer and a plough.

Photo, Central News

and secured the control of the distribution of all arms. When the men in control of arsenals or the owners of private stocks of arms objected, the soldier committees controlling the regiments made their authority felt. An extraordinary situation existed. Kerensky's government was responsible for the country as a whole, but the Petrograd Soviet, led by the Bolsheviks, really controlled, through its commissars, a large part of the Petrograd garrison.

Throughout the city meetings were held among the people urging revolution in the most violent language, and the government was not strong enough to prevent them. The Smolny Institute, formerly a school for the daughters of nobles, had been taken over as the headquarters of the Petrograd Soviet and became the revolutionary centre. The regular staff of the army tried to retain control of the troops, but with many of the regiments it could do nothing. The very Volhynian regiment which had played a leading part in suppressing the revolt in July was now with the Bolsheviks. On November 4 the Bolsheviks openly paraded the streets and called for the downfall of Kerensky, none daring to stop them.

By November 6 the revolutionists had most of the garrison with them and had established a network of agencies spreading far beyond Petrograd. Their military revolutionary committee at the Smolny was now in permanent session. That evening Kerensky demanded the approval of the Provisional Assembly for suppressive measures against the Bolsheviks, but he had delayed too long.

On the morning of November 7 the cruiser Aurora, ordered by the Ministry of Marine to get under way and leave Petrograd, refused to obey. That same morning the Kerensky government seized the offices of the Soviet newspapers. The Revolutionary Committee sent the Volhynian regiment to re-open them, which it did. The cruiser Aurora came up the river and shelled the Winter Palace, the headquarters of Kerensky and the Admiralty. She was joined by the guns in the fortress of Peter and Paul across the Neva. Kerensky fled and in a few

hours Petrograd was in the hands of the Bolsheviks.

The only people apparently who put up any fight were groups of military cadets, the Junkers, little more than schoolboys, and the regiment of women, one of the Battalions of Death formed in the last desperate struggle of free Russia. What happened to the women's battalion in the end is not quite clear. According to the Bolshevik account, the men just rushed the women, took away their arms and hustled them off. But, if some eye-witnesses are to be believed, the square in front of the Winter Palace ran blood, and the bodies of many of the women, shot in the fighting, lay around.

There came two dramatic moments. The All Russia Congress of Soviets was meeting that day, and in it were not only Bolsheviks but many Mensheviks and Socialists of **Fight for the other schools. Lenin and Winter Palace** Trotsky made their appearance in the great Assembly while the sailors and Red guards were fighting in the streets. Then came the sound of guns, the guns of the Aurora firing into the Winter Palace. At once a protest was raised. 'You are political hypocrites,' cried one man, facing Lenin and his group. 'You have called us here to settle the question of power, and while we are debating it you are settling the question with your guns.'

Another man arose and declared that if their comrades in the Winter Palace were to die, they would die with them, and so a procession of politicians was formed, Mensheviks, Socialists, Anarchists and the like, and formed fours to march through the streets and die. A line of armed sailors stopped them. 'We have orders to allow no one to pass,' they said. 'We will go by! Shoot us if you like!' the men and women shouted back. The sailors hustled and threatened them. 'Let us go back,' said one of the delegates at last. 'Let us return to the Duma and discuss how to save the country.' And so the politicians marched back.

A few hours later there came another move. A group of Junkers, boy cadets, swept down in the morning on the Central Telephone Exchange and seized it. They

had been ordered to do so by some of their adult leaders who were not themselves over eager to risk their skins. They were attacked by a furious crowd of the Reds, backed by armoured cars, and many were killed. This was the only real fighting in the capture of Petrograd.

In Moscow there was a fiercer conflict. Here the Junkers got together and put up a battle lasting for days. Some regular regiments held the Kremlin, the fortified palace castle of the tsars, and prolonged fighting followed. The Bolsheviks had big guns and, it was said, German gunners behind them. Some of these guns were placed in strategic posts and their shells made the position of Kerensky's followers impossible. They had to yield, and officers and Junkers were butchered ruthlessly.

Kerensky escaped from the Winter Palace and got in touch with forces, outside Petrograd, still loyal to the

**End of the
Provisional Government**

provisional government. The 'Savage Division' of Cossacks, General Kornilov's finest fighting men, rallied to him. They advanced from the south and captured place after place, including Tsarskoye Selo and Gatchina. The revolutionists called on the Petrograd troops to proceed against them. Three regiments refused point blank. 'Let us try peaceful methods first,' their committees declared. The Bolshevik Revolutionary Committee hurried up all its forces, sailors from the fleet, Red Guards and volunteers. Large numbers of guns and machine guns were moved forward and for two days the Reds made ready. Then they opened their attack with a tremendous artillery barrage. Armoured cars advanced and the sailors and workers moved forward to the attack. The order was given for the Savage Division to retreat, and the retreat soon degenerated into a rout. Some of Kerensky's troops at Gatchina laid down their arms and surrendered. The provisional government was over.

The Reds had captured the government by a coup d'état, but their position was one of extraordinary difficulty. They had actually only taken by force two cities, Petrograd and Moscow. Lenin himself did not expect to be able to hold power for

long. He thought that at the best he and his followers would repeat the experience of the Communards in Paris in 1871, and would be wiped out after a few weeks of daring experiment.

Russia was still at war with Germany and her allies; the Russian army lacked both the means and the will to resist a vigorous German advance, and it was anticipated in most quarters that Germany would force an offensive, occupy Petrograd and end Communism. Even should the Germans not do this, there were other military dangers. The general staff of the army was against the Reds and still had the command of considerable forces. The Petrograd garrison had gone with Lenin in the critical hours, but a few days hence it might equally turn against him. The Constituent Assembly, chosen from the whole nation, was soon to meet, and it was certain that the Bolsheviks would be in a minority in it. The Bolsheviks were only a small section of the revolutionists and the others could combine against them and overthrow them. The various trade unions and popular organizations, which had sprung to life immediately after the March uprising, were carefully united, had a central administration and controlled the means of production and of transit. They were none too friendly to Lenin. Hunger still prevailed in Petrograd, for the change of government had not brought more food.

Lenin set about his work coldly and deliberately, like a master chess player making his moves. The commander-in-chief of the army, General Duhokin, was summoned for a conference with a young lawyer officer, Lieutenant Krylenko, sent as representative of the Revolutionary Committee. Duhokin and Krylenko met at a side railway station, and one of Krylenko's followers shot and killed Duhokin, so that the general staff was robbed of its head. Krylenko was appointed the new leader of the army. It was necessary to maintain the old military machinery, but as quickly as possible one or two Communists were placed over each army commander, under the title of Red Commissars. The officer saw to military action; the com-

missars watched him day and night to make sure that he did not play traitor. At the first sign of treachery they shot him. The soldier committees were abolished as quickly as possible and replaced by Communist military groups.

Lenin made no secret of the fact that he was establishing not a democratic government but a revolutionary dictatorship. He and his chief followers formed themselves into an executive and administrative committee, with all power. For name they chose, on the suggestion of Trotsky, 'Council of People's Commissars.' One of the first acts of the council, carried through when Lenin was temporarily away, was to abolish the death penalty for military deserters. When Lenin returned and found what had been done, he was furious. Trotsky has described the scene. 'That is madness,' Lenin repeated. 'How can we accomplish a revolution without shooting? Do you think you can settle with your enemies if you disarm? What repressive measures have you then? Imprisonment? Who pays any attention to that in a time of bourgeois war, when every party hopes for victory?'

The Constituent Assembly met on January 18, 1918. It was preceded by other popular congresses, where there were many evidences of opposition to

the Bolsheviks. The peasants were especially offended because the Bolshevik party was essentially composed of town workers and not of peasants. The Constituent Assembly was equally hostile; out of 703 members, there were only 168 Bolsheviks. The Assembly met at eight in the morning and chose as its chairman a prominent non-Bolshevik revolutionist, Victor Tchernov. There was tremendous excitement, for it was recognized that here was the great testing point between Lenin and the men of the other revolutionary groups. The Tauride Palace, the scene of the gathering, was packed. The Bolshevik leader Sverdlov presented a declaration which the Soviet government demanded should be adopted by the Assembly as its working basis. In this declaration the Assembly was called upon to pledge itself to 'support the Soviet

rule and accept orders of the Council of People's Commissars.' It was evident from the first that the Assembly was fiercely hostile. After nearly sixteen hours' discussion, the Assembly rejected the declaration. Thereupon Sverdlov and the Bolsheviks withdrew and sailor guards soon after cleared out the Assembly by force. It never met again.

Realizing their weakness, the Bolshevik leaders were anxious to reach some temporary compromise with their enemies. While the negotiations were in the air for peace with Germany, Trotsky saw Bolsheviks make British and American peace with Germany representatives and offered to continue on the side of the Allies in return for the recognition of the Soviet government, and for Allied assistance in renewing and reconstructing the railroads and communications of Russia. The Allies rejected the proposals, largely on the advice of the French general staff officers, who did not consider that the Bolsheviks could be of any possible service. Judged to-day, this seems an amazingly foolish decision. But it must be remembered that when it was made almost everyone on the spot believed that the Bolsheviks could not last at the most more than a few weeks.

Bolshevik and German delegates met at Brest Litovsk to discuss terms of peace. Lenin had determined to end the war at any price. If necessary, he declared to his followers, he and they would retreat to the east to the Ural-Kuznestsy basin, form a fresh republic there, and gradually recover the great cities of Russia. Trotsky, now foreign minister under the title of People's Commissar for Foreign Affairs, was in favour of renewing the war, or at any rate of threatening to renew it, in order to obtain better terms from the Germans. If this could not be done he wanted to end the war without making a formal peace. Lenin did not regard this as practical politics. 'What are we to do if General Hoffmann marches his troops against us?' he asked.

General Hoffmann, the German delegate, was haughty and contemptuous. The terms when presented were such that even Lenin recoiled. Most of Russia that had been gained since the days of Peter the

Great, including the Baltic provinces and Poland, was to go, and Germany was to be given all privileges for the economic exploitation of the country.

While the Bolshevik leaders were hesitating, a message was received from General Hoffmann's representative that the truce was over and war would begin again at once. There was nothing to do but to yield. Trotsky, still protesting that they should let the Germans attack them first before they yielded, was overborne and

resigned his post as foreign minister. The Central powers had concluded a separate peace with the Ukraine and occupied large parts of the south with their troops.

The People's Commissars issued a number of remarkable political and economic decrees, changing the basis of Russian society. All newspapers criticising the Bolsheviks were suppressed, although it was declared that this device was of a temporary nature and would be revoked when normal conditions of public

life were re-established. The free right of public meeting was ended. All local soviets were ordered to form a workers' militia, and this became the basis of the Red army, the future fighting revolutionary force. All unoccupied houses were taken over to be used for the homeless. One decree promised complete social insurance of wage workers and of the town and village poor. Another, issued by Lunacharsky, who had been appointed commissar for educa-



SCENE OF AN ABORTIVE DIPLOMATIC TRIUMPH FOR GERMANY

Brest Litovsk, in Russian Poland, was captured by the Germans in August, 1915, and here, in this house, the Germans received the Bolshevik delegates in December, 1917, to negotiate the treaty, signed March 3, 1918, which terminated hostilities. Representatives of the Central powers shown in the upper photograph included, from left to right, General Hoffman, Count Czernin, Talaat Pasha and Herr von Kuhlmann. The treaty was annulled by a proviso of the armistice of November 11, 1918.

Photo, Topical Press Agency

tion, forecast a great scheme for popular instruction. The prohibition of strong drink was continued. All classes and class divisions, all class privileges and limitations, all titles and all denominations of every rank were abolished, the one general title being 'citizen of the Russian Republic.' All class institutions of any sort with their property were to be handed over to the local authorities, and the property and institutions of all nobles and of merchant and middle-class organizations were to be taken also. The Communists set out to fight religion by every means in their power.

The economic policy of the Bolsheviks advanced rapidly. At first Lenin seemed inclined to permit old business methods to continue under stricter state control. But it was soon determined to seize every form of wealth and every means of production. All property of every kind, including the possessions not only of the Church and of the state but of private individuals, was, by a series of decrees, declared the property of the state. All business of every form was taken over. The system of private credit and banking was destroyed. At first people who had accounts at banks were permitted to withdraw small quantities of money. Soon this privilege was abolished. Insurance organizations came to an end. All private ownership of land was abolished and the use of the land was given to the peasants. All factories and workshops were placed under the administration of the committees of workers.

Shops of every kind were closed and their stocks expropriated. It was forbidden, under the heaviest penalties, for any person to own private reserves of food, and a system of universal rationing was established in the cities. People were



UNIVERSAL LABOUR IN SOVIET RUSSIA

Compulsory work for all was a principle of communism to which the Bolsheviks gave early effect, gratifying their class prejudices by employing members of the fallen aristocracy in the hardest and most unsavoury tasks. In Petrograd, for example, delicately nurtured women could be seen helping in the scavenging of the streets.

Photo, Dr. L. Haden Guest

divided into three groups, the first, including all the Communist officials and administrators, receiving an adequate supply; the second, the workers, a smaller share; and the third, the old intelligentsia and upper and middle classes, a starvation diet. Even this last was not fully issued, and soon there were wholesale deaths from hunger and disease.

Class war and the dictation of the working classes were made the foundation principles of the state. Only working men and women were given the right to vote, and the aristocracy, business men and members of religious orders were specifically excluded. The old courts of law were abolished, and 'people's tribunals' were established, which were to decide and sentence, where there were no specific decrees to guide them, 'according to the proletarian conscience.' The Communists became an inner group, guiding and controlling all private and public activities. Communist 'nests' were gradually formed in every factory, organization and regiment. 'Red guards,' the Communist militia from the factories, dragooned the people. They searched apartments wholesale for concealed stocks of food, and arrested or shot the owners when food was

found. They 'expropriated' (that is, seized nominally for the state) everything they wanted.

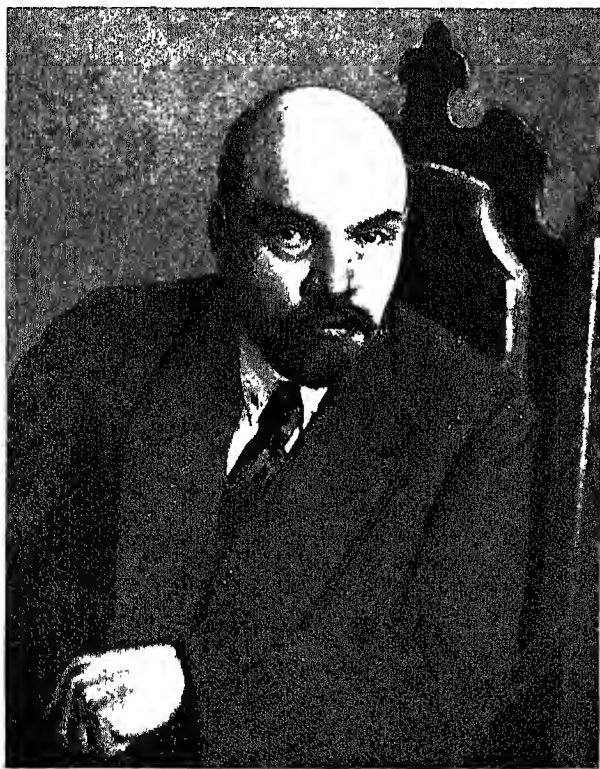
One principle of Communism was the universal obligation to work. Gentlefolk were set to manual labour. Clever people got into government offices, where they idled royally. Haush officials made the work of the old aristocracy as hard and disagreeable as possible. It was considered a rare joke to make an ex-countess clean lavatories or sweep the streets. Housing was rationed, and the family of a doctor or professor might find half a dozen factory workers sent to share their home. Universal labour did not increase production. It seemed rather to diminish it.

The capital of Russia was moved back from Petrograd to Moscow, the city that, by historic interest and geographical position, is the real heart of Muscovy.

Moscow had been greatly damaged during the revolutionary fighting. After this was over the people had poured out from the slums and had occupied the palaces of the one-time rich, transforming them in turn into slums. The winter of 1917 and the spring and summer of 1918 was a time of much suffering and of great uncertainty. The Treaty of Brest Litovsk, however inevitable it had been, did much to damage the prestige of the People's Commissars. They knew that the mass of the members of other socialist organizations were watching a chance to overthrow them.

Then came a step which hardened, strengthened and revived the Bolshevik cause. Social Revolutionists made attempts on the lives of some of the leaders. Uritski and Volodarski, who had earned an evil name by their cruelty to their opponents in Petrograd, were shot and killed. A young Jewish woman, a Social Revolutionist, Dora Kaplan, shot and seriously wounded Lenin in the same city. The result of this was an outburst of popular indignation. Trotsky has described the result. 'In these tragic days the Revolution suffered an inward change. Its good nature gave way. The party steel received its last tempering. Firmness and, when necessary, ruthlessness grew out of it. At the front the political divisions struggled hand in hand with the shock troops and the tribunals to develop the power of the young army.'

An organization had been formed, soon after the revolution, well suited to be an instrument of terror, the Cheka, a picked force of Communist political police. It was built up on the lines of the old tsarist police. At the head was a very remarkable Polish revolutionist, Dzherzhinsky, a tall, blue-eyed fanatic, disinterested, wholly sincere, humane in his personal life, but relentless and remorseless



NIKOLAI LENIN, 'THE RED TSAR'

Vladimir Ilyich Ulianov (1870-1924)—world-famous under his assumed name Nikolai Lenin—secured control of the government of Russia in November, 1917. In 1918 he transferred the government to Moscow and lived in the Kremlin closely guarded by Chinese mercenaries.

From Valeriu Machu, 'Lenin,' Paul List Verlag, Leipzig

in his official capacity. Among his chief assistants was a Lett, Jacob Peters, formerly a tailor's presser in the East End of London, who had been placed on trial there for participation in the notorious Houndsditch Anarchist murders some years before, but had been found not guilty. A number of Letts were enlisted in the new service, and Chinese who had been brought over to Russia during the Great War were used as its special troops. After a time, however, these Chinese were disbanded and sent home again.

At the beginning the Che-ka was not exceptionally cruel. It carried out a certain number of executions and imprisoned a number of suspects, but the total of these was not excessive, considering the vast area of disturbance. There were signs that the rank and file of the revolutionary fighters regarded their leaders as too hesitating over this matter of killing. They were not to have reason to complain much longer.

Following the attempt on Lenin large bands of Reds marched through the streets of Moscow, Petrograd and elsewhere, dragged prominent men of the old regime from their beds and butchered them or hanged them. The Soviet government deliberately resolved to strike terror into the hearts of its opponents. Thousands of prominent men and women were arrested as hostages, and numbers were slain. A campaign to incite the people to



A MAN OF BLOOD

Felix Dzerzhinsky (1877-1926), a fanatical Polish revolutionary, was identified with the worst atrocities of the Red Terror inaugurated in 1918. As head of the Che-ka he was responsible for innumerable executions.

Photo, E.N.A.

slaughter and violence was deliberately begun.

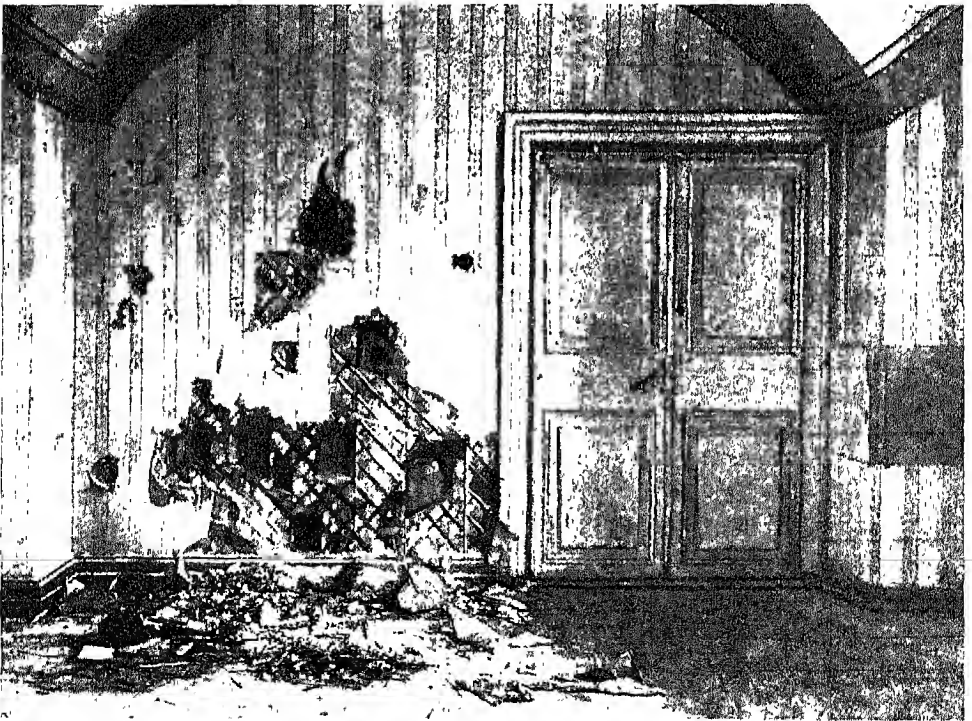
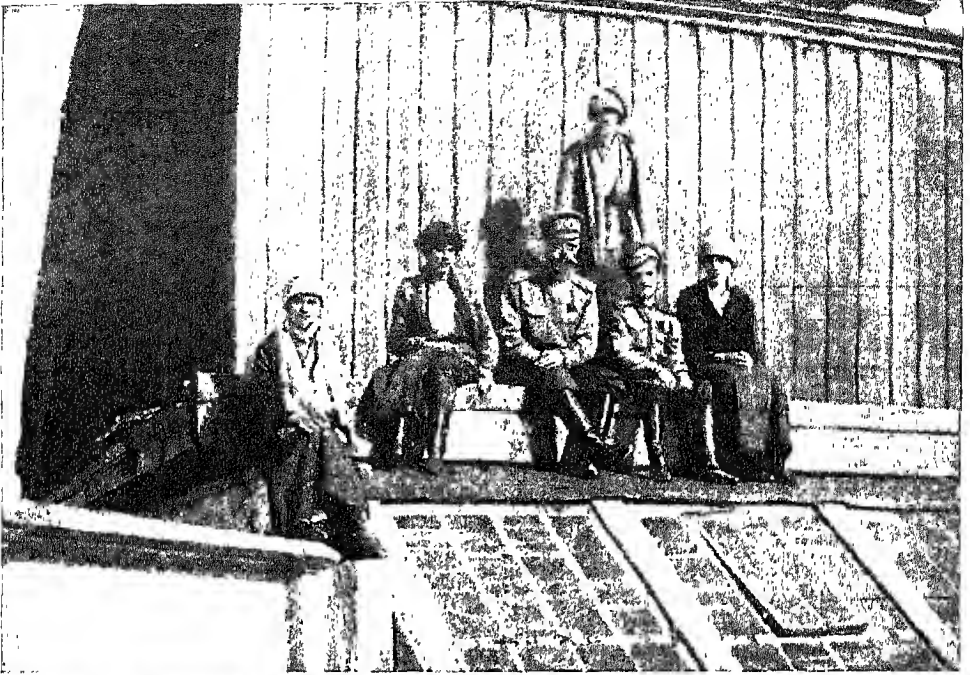
Jacob Peters, on behalf of the Che-ka, issued a proclamation that the crime against Lenin would be answered by a mass terror. 'All representatives of capital will be sent to forced labour and their property confiscated. Counter-revolutionaries will be exterminated.' 'Thousands of our enemies must pay for Uritski's death,' declared the Red Gazette. 'We



REVIEW OF THE MILITARY BRANCH OF THE CHE-KA IN MOSCOW

Tyranny has always forged a potent weapon for itself in a highly organized system of reliable secret police, but seldom if ever has that weapon been used with more savage ruthlessness than in Russia by the Soviet government, when in 1918 they inaugurated the Red Terror to exterminate the last counter-revolutionary. Their political police, the Che-ka, comprised both a civil and a military branch. This photograph shows a review of the latter in the Square, Moscow, early in 1928.

Photo, Planet News, Ltd



In September, 1917, the imperial family was removed to Tobolsk and imprisoned in the Governor-general's house, on the roof of which they are seen in the upper photograph. From left to right the figures are, the grand duchesses Olga and Anastasia, the tsar, tsarevitch and grand duchess Tatiana, with the grand duchess Marie standing behind. In April, 1918, they were transferred to Ekaterinburg where, in the cellar shown below, they were all shot on the night of July 16-17.

LAST STATIONS ON THE IMPERIAL FAMILY'S JOURNEY TO THE GRAVE

must teach the bourgeoisie a bloody lesson.' The same paper, the organ of the Red army, on the day following the attempt, published an article, *Blood for Blood*, in which it said :

We will turn our hearts into steel, which we will temper in the fire of suffering and the blood of fighters for freedom. We will make our hearts cruel, hard and immovable, so that no mercy will enter them, and so that they will not quiver at the sight of a sea of enemy blood. We will let loose the floodgates of that sea. Without mercy, without sparing, we will kill our enemies in scores of hundreds. Let them be thousands, let them drown themselves in their own blood. For the blood of Lenin and Uritski, Zinoviev, and Volodarski, let there be floods of the blood of the bourgeois—more blood, as much as possible.

What happened all over the country during the next few months was terrible beyond words. In many cities big office buildings were taken in a convenient central position, were surrounded by special guards and were turned into houses of confinement and death. People who did not belong to the working classes were arrested by the tens of thousands. Often men and women, girls and young men, were packed in the same room, where they were left, some of them for weeks or months, till they were shot or died of disease. They were given no open trial, save in exceptional cases. Revolutionary tribunals, composed

Horrors of the Red Terror sometimes of soldiers, sometimes of groups of working men, sometimes of members of the Che-ka, decided their fate in secret. During the night guards would come to the door of each room, call out a certain number of the people by name and lead them away. The usual fashion was for the victims to be led down a passage way and suddenly to be shot behind the left ear with a heavy army revolver.

Sometimes a district would be surrounded and all the people in it arrested and left in prison for as long as the authorities pleased. Some visitors to the old prison in Kharkov in 1922 saw an old peasant woman crouched in the corner of a cell, looking a picture of such unutterable misery that they inquired about her. Investigation showed that two years before she had come into

Kharkov from the country to sell some goods. While going through the streets she had passed some people who were marked down by the police for arrest. They seized her along with them, flung her into prison and forgot her.

The insanitary condition of these prisons, where, as a rule, there was little or no provision for the most primitive needs, caused outbreaks of epidemics among the prisoners. Far more died from disease and starvation than died from bullets. Some prisons earned a grim notoriety—Odessa, where the commandant loved to play with and kill his victims like a cat with a mouse, and Kharkov, where, when a rescuing army arrived, they found victims crucified on the floor, and the skins of men who had 'had their gloves taken off,' that is, had had their hands skinned while they were alive. In many of the prisons torture was freely employed to extract evidence. At the slightest suspicion of anti-revolutionary activity groups of prisoners, the higher the better, would be taken out to be shot.

The Red Terror horrified the world, but it succeeded in its main purpose. It stopped the campaign of assassination which had been planned

by one group of the **Counter-revolution Social Revolutionists.** **overwhelmed**

It struck such fear into the hearts of the masses of the anti-Bolsheviks that they did not dare so much as whisper a word against the government. Trotsky said frankly that in war, military or civil, the one thing they must do was to destroy 'the will to resist' of their enemies. It is impossible to give exact figures of the number of deaths under the Red Terror, for no exact figures were kept. The authorities themselves did not trouble to retain the names of many of their victims. The total was certainly enormous.

Before the second revolution, Kerensky had sent the ex-tsar and his family to Tobolsk in Siberia. In the spring of 1918 Nicholas, the ex-empress and the grand duchess Marie were being moved to Ufa when, as their train was passing through Ekaterinburg, the heads of the local council of soldiers', workers' and peasants' deputies seized them and imprisoned them

in a house in their city. A few weeks later the ex-tsar's other three daughters and the invalid tsarevitch joined them. They were kept close captives until July, when the local authorities, having failed to secure the permission of Moscow, shot the whole family in the cellar of the house where they were confined, and afterwards sought to destroy the bodies by burning and soaking the remnants in sulphuric acid.

The opponents of Communism were at first overwhelmed by the entire collapse of the fabric of society, but soon they began to revive. They found themselves hampered by differences that in the end were to destroy them. The Communists were united, while the anti-Communists were divided into many groups. Even those groups that were willing to work together for a time were torn by fundamental differences. Many of the old generals, who now came to the front as White (i.e. anti-Bolshevik) military leaders were at heart monarchists, who desired the restoration of the old economic and social system. There was a gulf between

them and the Cadets, the constitutional reformers; there was a still greater gulf between the Cadets and the moderate Socialists. In Siberia the White military leaders were busy at the same time fighting the Communists and eliminating the anti-Communist reformers by the simple process of shooting their leaders and shoving their bodies through holes in the ice.

The Allied powers maintained a loose connexion with the Bolsheviks for some months, to see what would happen. They felt that the Bolsheviks had betrayed them by **Anti-Bolshevik Campaigns** declaring peace with Germany, and felt justified in working against them. The situation with the British was made immensely worse by the murder of a British official, Captain Cromie, in Moscow. Britain withdrew her nationals, maintained a blockade of the Russian ports, and gave men, money and munitions in abundance to aid the anti-Bolshevik cause.

The first definite fighting moves against the Bolsheviks came from the Cossacks of south-east Russia and from the Czecho-Slovak corps. The large numbers of Czecho-Slovak prisoners of war in Russia at the time of the first revolution made common cause with the Kerensky government and were armed and equipped by it as an independent unit. When the Bolsheviks took power, their relations with the Czecho Slovaks grew strained, and in the end the Czechs moved against them, seized parts of the Trans-Siberian railway and drove the ill-trained Red guards off.

The Cossacks, under the leadership first of General Alexieiev and General Krasnov, and then of General Denikin, took control of much of the country to the south-east and south. The Germans, who had been sweeping over large parts of the southern country, tried to come to terms with them, but they would have nothing to do with their enemies. Under General Denikin, backed by Britain, a very considerable volunteer army was raised, which, between June and October, 1919, captured a number of cities, including Kharkov and Poltava, and expected to reach Moscow by November. Denikin, however, made the fatal mistake of



GENERAL DENIKIN

After the revolution of 1917 Denikin, here seen inspecting a tank corps, became chief-of-staff to General Alexieiev, on whose death in 1918 he succeeded to the command. Denikin's armies collapsed by the beginning of 1920.

Photo, J. Preston

attempting to restore the old regime of the nobles behind his lines. This alienated the peasantry, and in addition to the Bolsheviks on his front he had to fight the people in his rear. In the autumn of 1919 the Bolsheviks advanced against him, his men were defeated in fight after fight, and he was forced to retreat.

In the spring of 1920 General Wrangel took over control of Denikin's remnants and established himself in the Crimea, where the Whites thought their position secure, the approach from the mainland being covered by the supposed impregnable defences of Perekop. In the autumn of that year, however, the Reds attacked the fortress and after prolonged fighting captured it. They then advanced through the Crimea. Most of the wreck of Wrangel's army and large numbers of civilian refugees, 143,000 in all, escaped on Allied ships. Many could not escape. On these the Communists wreaked summary vengeance. Bela Kun, a well-known Hungarian revolutionist, who had been defeated in his own country, was sent down as commissar and had thousands of Russian officers shot.

From the west, General Judenich advanced in the spring of 1918 from Esthonia with 30,000 men known as the north-western volunteer army. He advanced so far that the capture of Petrograd seemed probable. Zinoviev, the Red leader, prepared to escape, but Trotsky, who had hurried up to the front from Moscow, took charge and ordered the Red army to advance, leading the way in person. They advanced with such strength that Judenich's forces were eliminated.

A serious effort, under British leadership, was made to start a counter-Bolshevik movement from

Abortive results of Archangel. **Large**
Allies' intervention British, American,

Canadian and other forces were landed along the northern coasts and occupied the country as far down as Breznik, being aided by considerable remnants of the old Russian army. In the end the Russian troops, won by Bolshevik propaganda, turned in many cases on their foreign allies, and the Allies had to withdraw to save themselves from being overwhelmed. There



GENERAL WRANGEL

Born at St Petersburg in 1879, Baron Peter Wrangel served in the Russo-Japanese War and in the Great War. He succeeded Denikin in command of the anti-Bolshevik force in the Crimea, but was defeated in 1920.

was a tragic sequel. Some thousands of young Russians who had aided the British were arrested and massed on one of the islands close to Archangel. Here the Bolshevik guards turned machine guns on them and slew them to a man.

The greatest anti-Bolshevik military campaign was made from the east, where Admiral Kolchak, with the assistance of the five Allied powers, captured the whole of Siberia and carried his forces right into European Russia. There seemed a time when victory was certain. But here, too, the people turned against Kolchak. He found it impossible to hold the long line of the Trans-Siberian railway. After defeat at various points, his armies started a tragic retreat, one of the most terrible military disasters of modern times. The Czechs, who were with him, made the situation worse by the way in which they

pushed their own forces through at the cost of many others. Thousands of refugees, civilian and military, froze to death. Tens of thousands perished of typhus. Admiral Kolchak took refuge with the Czechs. The Reds demanded his surrender, and the Czechs handed him over. Kolchak and his chief supporters were shot, and the expedition was completely broken. This remnant fell back upon Eastern Siberia, where, with the assistance of the Japanese, they held Vladivostok. In the end Vladivostok, too, had to be evacuated, and the Bolsheviks had secured all of old Russia.

The Bolshevik campaigns abroad had, however, not been so successful. There had been violent attempts at revolution in Finland and in the Baltic states, which were overcome after heavy fighting, and these countries secured their independence. There came war between Poland and Russia, and the Red guards advanced so far that the sound of their guns was heard in Warsaw itself. But the Polish staff, under French military leadership, drove

back the attack, and Communist Russia had to make peace with the sacrifice of a considerable section of White Russia. The British boycott terminated, and a trade agreement was arrived at between Britain and Russia, from which at the time much was hoped. The German forces had withdrawn from South Russia, and Moscow ruled from the Pacific coast to Poland.

The civil war had been accompanied by hideous cruelties on both sides. It had devastated and ruined a large part of the country, and had checked every kind of moral, social and political progress. Large numbers of Russians who had no sympathy with Communism felt themselves bound to help their country when foreign troops invaded it to help the Whites. It was generally admitted afterwards that the Allied intervention to help the Whites was a mistake, not merely in that it meant the waste of hundreds of millions of money and of many lives, but also in that it strengthened the hands of the worst elements of Communism and tended to make the Communist leaders more extreme, merciless and unbending than before.

One acute problem facing the Bolshevik leaders was their relation to non-Communist revolutionary groups. Should they make themselves dictators of Russia alone or



MEN WHO HELD THE CONFIDENCE OF THE ARCH-BOLSHEVIK LENIN

Comrade Kamenev (right) joined the Communists in 1901, presently incurring exile to Siberia as one of the leaders of the Bolshevik movement. After the Revolution he became Lenin's right-hand man, although an advocate of more moderate methods in the official policy. Zinoviev (left) was also a leading member of the Bolshevik Central Committee ten years before the war and shared exile with Lenin. As president of the Third International he directed the Soviet's unofficial foreign policy.

Photos, General Photographic Agency and Central News

lead a constitutional movement in co-operation with others? Several of the leaders, including Kamenev, then editor of the Communist paper, *Pravda*, and Zinoviev, favoured co-operation, declaring that a constituent assembly must be called, or else they would have to 'form a purely Bolshevik government by means of political terror.' They attempted to force Lenin to follow their lead by resigning their places on the Central Committee of the Communist party. Lenin overwhelmed them, and in a few days they yielded, returning to work.

Henceforth the only road to office or power in Russia was by strict adherence to Communism. The whole machinery of state fell into the hands of the Communist party. The other groups that had helped to make the revolution protested and struggled, but in vain, for Lenin had the power. From protest, the rival groups turned to struggle. Before a year was over multitudes of the old allies of the Bolsheviks had been sent to prison or had already been shot. 'I was twenty years a captive of the tsar because I sought liberty,' one Socialist leader said from his cell. 'Am I now beginning another twenty years in prison, held by the Communists, because I still seek liberty?'

This war against all other political groups led logically to the revival of the methods of oppression employed by tsarism. The exile system was, in the end, restored, and the political police were given power to arrest, imprison and send into exile—without open trial—any person objectionable to them. Great concentration camps were established, in Solovetzky Island and elsewhere, where tens of thousands of men and women supposed to be unsympathetic to the government were kept under penal conditions. Old Social Revolutionists and Anarchists, as



A MASTER BUILDER OF THE REVOLUTION

Formerly a journalist by profession, Lev Davidovitch Trotsky formed the Bolshevik Revolutionary Committee that overthrew Kerensky in 1917. In the government that he established he became commissar for foreign affairs with Lenin as president. Coming into conflict with Stalin, after Lenin's death, he was disciplined and exiled. Later, he found refuge in Constantinople.

a rule, were granted some of the usual privileges of political prisoners, but the mass of exiles were treated as convicts.

Lenin began to build up his machine of government. The first stage was military dictatorship. Russia was divided into four federal republics, each with its groups of soviets (committees) which administered all local matters. The affairs of Russia generally were controlled by the Central Executive Committee of the Communist party sitting in Moscow, which ruled through the Council of People's Commissars, themselves members of the Executive Committee. The commissars divided the work of the state into departments. Lenin was president and leader; Trotsky had taken over the work of national defence, Lunacharsky education and Chicherin

foreign affairs. The commissars were assisted by two bodies, the Che-ka and the Red army.

The old army had crumpled up after the peace of Brest Litovsk. The Red guards had then been developed into a revolutionary army, the remnants of the old army being amalgamated with them. Old army officers were compelled to serve, under threat of death, and were kept faithful by the intimation that their families would be regarded as hostages for their good behaviour. Service in the army was made compulsory for the working classes. The Red army was at first poorly clad, badly equipped and ill disciplined; gradually the military genius of Trotsky built up a great and powerful military organization.

It must not be imagined that this orderly planning of the administration of the state into well defined departments bore any close relation to actual conditions. The departments existed, but on paper. In practice there was the wildest confusion. Each section overlapped the others. The leaders would spend half their

days and nights in committees, furiously debating fundamental principles. Attempts to introduce rules of procedure produced such complications that the simplest orders often took weeks to receive necessary signatures. Every commissar had to do a thousand things himself that subordinates should have done, because there was no efficient staff organization. Routine, delay, confusion were universal.

Later on, a much more elaborate constitution was adopted, under which Russia became a part of the Union of Socialist Soviet Republics, a world-state organization. This union is divided into four main groups of republics, Russia, White Russia, Ukraina and Transcaucasia, which in turn are divided into united smaller states. Each state has its series of local administrative bodies, soviets, which may be compared to village councils, borough and rural district councils and county councils, and a state gathering chosen from the urban and county councils. These are elected by workers only, the workers' vote being taken in the mass, delegates being chosen in open assembly. Non-workers,



COMMANDER TROTSKY REVIEWS A LETTISH REGIMENT AT MOSCOW

At the beginning of the Great War many Letts were serving in the Russian army and in June, 1915, they were made into a separate force under Lettish officers. Although after the armistice of 1918 Latvia became an independent republic, a large number of Lettish troops remained in the Russian service. This photograph shows Trotsky reviewing one such regiment at Moscow in 1919. A number of Letts were employed in the Communist police force known as the Che-ka.

merchants, traders, people living on unearned incomes and ministers of religion and old police officials are not allowed to vote. The votes of peasants count for less than those of town workers, to compensate for the overwhelming voice peasants would otherwise have.

A monster congress—it cannot be called a parliament—numbering many thousands, meets each year and agrees to the choice of the All Russia Central Executive Committee of between three and four hundred, which meets three times a year, and can be described as the Russian parliament. This congress elects administrative committees and the Council of People's Commissars, who carry on the routine administration of the state and have very extensive powers of legislating by decree.

The Council of People's Commissars consists of leaders of the Communist party. The ultimate control of the state rests not with the elected

Communists in bodies, but with the Com-
Supreme Control munist party. Numbering about 600,000 members, it has its committee, one small central group in Moscow, which says the final word on all affairs of state, and local committees in every district. It stands as a firmly established unit behind every organization, and nothing can be done without its consent and co-operation.

The plan of the open election of delegates to the soviets meant at first that no man dared to propose any other candidate but those of the Communist party. Gradually, however, it has been found that, both at the elections and at the congress, people are beginning to recover their courage and to be more free in criticism and denunciation. The Communist government has created an electoral machine which, under future developments, may prove a real organ of the national will.

The Communists had won great military and political success. They had kept Russia and most of Siberia united. The Baltic states, Finland and Poland had, it is true, gone, as they were bound to go. But they were in no sense part of Russia, except by former conquest. Bessarabia had also been occupied and was held by the Rumanians, who claimed that this

was part of their land. The Japanese and the Whites still occupied parts of Eastern Siberia, but it was already clear that they could not remain there long. For the rest, from the Polish frontier to far beyond Lake Baikal, and from the Arctic Circle to central Asia and to the Caucasus and Crimea, the Communists had established absolute rule. Their enemies had been not merely defeated, but crushed, demoralised and disheartened. The leaders of the opposition Socialist groups were nearly all dead or in prison. The Red Terror was nominally over and military communism at an end, although the real terror exercised by the Che-ka still continued.

But economically and socially their rule had been an equally complete failure. The country was a ruin. Industry was paralysed and agriculture had declined amazingly. **Economic and Social Disaster** The cities were most of them more like mortuaries than the homes of living men. The streets of great capitals like Moscow and Petrograd, four years before bright and cheerful, with throngs of well-dressed and prosperous people, with gay restaurants and bright shops, were now sombre centres of gloom, the shops and restaurants closed—save for an occasional hairdresser or government store—many houses in ruins, the factories operating feebly, the people ill-dressed, cold and hungry. The main centres of activity were the government offices. These abounded, and hundreds of thousands of men and women were occupied in doing work that might have been done by hundreds. The clerks were so cold, for there was little or no fuel, that they could scarcely fumble over the papers that they held; they were so weak from lack of food that they could not think what they were doing; and bureaucratic details had been developed to such an extent that the most ordinary decisions often took months to make.

The prisons were full, so full that in many cases the gaolers had forgotten the names or the crimes of many of the people who packed their cells. Starvation was taking its heavy toll inside the gaols. Official returns showed that in the prison of Ufa, in three months and a half, out of a

thousand prisoners 414 had died, 169 from hunger and 245 from other causes.

Typhus was making its appearance everywhere, and there were many signs of coming famine. The typhus was due to the conditions of dirt, neglect and hunger throughout the land. Soap was a rarity; cleanliness was impossible. Vermin multiplied because there was no way of killing them. In Moscow almost every house, including the office of Trotsky himself, was overrun by great rats. Walking down the streets at night time, one would see monster processions of rats crossing the road, rats that were breeding unchecked in the warehouses where the Communist authorities had closed and sealed the goods that they had expropriated. The doctors had no medicines, no dainty foods, not even the simplest appliances. The hospitals lacked anaesthetics, bandages, surgical instruments and medicines of all kinds. The official drug stores were open, but their shelves usually empty.

The ruin of industry was complete. This ruin had been encouraged by the blockade of Russia, but its real cause went deeper. The working men had shot or driven out their foremen, their technicians and their managers, but they were not capable of administering their own concerns, even if they had abundant supplies of raw material available. There was little or no discipline. In great engineering shops, equipped with the finest plant, men would take at will whatever parts they wanted from any



UNDER BOLSHEVIK RULE IN PETROGRAD

The distress prevalent in many Russian cities strikingly testified to the economic failure of the Bolshevik government. In Petrograd many cafés fell, like this one (top), into dilapidation. Provisions made for the population's food supply proved inadequate. Below: a bread queue.

Photos, Dr. L. Haden Guest

machine they could find to re-equip their own machine, with the result that the most modern plants soon became wrecks. In some cases the workmen for sheer devilry burnt and destroyed their own factories.

The Communist leaders were trying to check this by establishing a system of state control over the factories, but this was being fought bitterly by the men. Even when a factory was being run by a conscientious group of workers they found themselves hampered in every way by inept and impossible regulations. In four years the number of factories through Soviet Russia had declined two-fifths; the number of workmen had fallen by over 75 per cent, and the quantity of goods produced had fallen

to a contemptible total. In agriculture the decline was equally marked. The area of cultivated land was only one half in 1921 what it was before the war. The number of horses had declined from 35,000,000 to 10,000,000.

Not only were private individuals starving, but the state could not obtain sufficient funds to carry on public affairs. Communism had deliberately destroyed state credit; but it found that a working state cannot dispense with credit any more than a working peasant can. Since all ordinary forms of wealth had been abolished, there was nothing left for the state to tax, and so it lacked funds to pay the most necessary expenses. State enterprises, in nearly every case, resulted not in gain but in heavy loss. The state printing presses could turn out paper money to any extent, but the more they turned out, the less became its value. The nominal value of the rouble was 2s., or ten to the £ sterling; in the autumn of 1921 the rate of exchange was 300,000 to the £; fifteen months later it had become 250,000,000 to the £.

Still more significant, some of the classes that had led in creating the revolution were now the fiercest critics of the new regime. The Kronstadt sailors' peasants, who had been discontent won to Communism by the promise of the land, were seething with discontent, and there were serious uprisings in various provinces. The sailors of the Baltic fleet, who had ensured the defeat of the provincial government when the Aurora shelled the Winter Palace, were now beginning to ally themselves with the other side. They had imagined themselves to be the liberators of Russia, and so long as they could be kept apart from the masses of the people they continued to think so. But with the conclusion of the actual fighting they had been given leave to visit their homes in different country parts, and there, to their amazement, they found that they were considered not the liberators but the enslavers of their land.

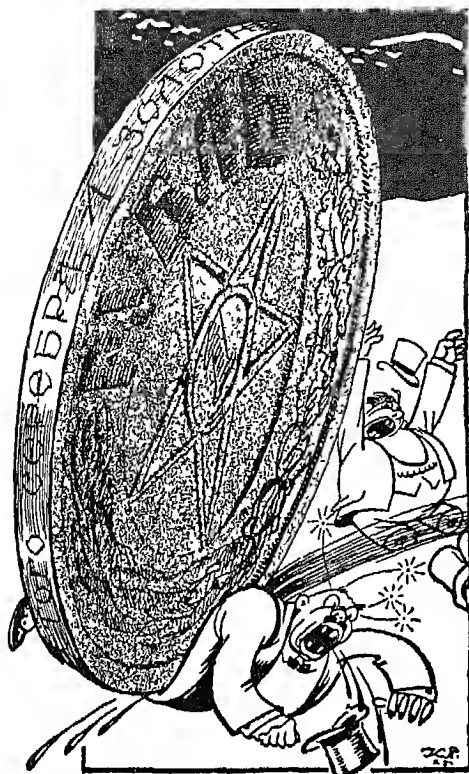
In February, 1921, there were great strikes in Petrograd factories due to the cold and hunger of the people. The Kronstadt sailors, when they heard this,

expressed their loud sympathy with the strikers. They sent a deputation to Petrograd to investigate conditions. Their committee drew up a report of the most appalling character, showing that corruption, starvation and oppression prevailed throughout the city. They drew up a series of demands and presented them to the Petrograd Soviet. The main points were:

1. Elections by secret ballot after free electioneering.
2. Freedom of speech and press for other revolutionary groups, for workers and peasants and for labour and peasant organizations
3. Liberation of all working class political prisoners, and the investigation by a commission of the cases of those held in prisons and concentration camps.
4. Equal rations for all.
5. The abolition of separate Communist fighting units and 'nests.'
6. Freedom of action for peasants so long as they did not employ hired labour, and freedom for the individual to produce by his own efforts.

The Communist authorities at once denounced these Kronstadt sailors as the victims of White agitators. Prominent Communist leaders came to a meeting of the Petrograd Soviet and vilified the sailors as traitors, and the Soviet passed a resolution that the sailors should surrender or be wiped out. Trotsky had been expected to speak at this meeting, but he was otherwise engaged, preparing his ships and artillery for action. The sailors refused to submit, and orders were given to attack them. There was much unrest among the Red troops at Petrograd over this order and a number of soldiers refused to obey. They were at once shot. All the sailors of the port were disarmed and sent to distant stations. Fighting was begun on March 10, and on March 17, 1921, Kronstadt was captured by assault and its garrison slaughtered in wholesale fashion. Those who were killed were happy, for those who were spared were sent to living death in prison camps in the Arctic.

The final blow was the refusal of the peasants to cultivate their lands. The state took all the crops that the peasants grew away from them, allowing them sufficient for their own needs and giving



'NEP ECONOMICS'

The right to resume private trade was restored to Communist Russia by the New Economic Policy, commonly called Nep, which Lenin instituted in 1921. Its triumphant progress is the subject of this Russian caricature.

From Fildp-Müller, 'The Mind and Face of Bolshevism,' G. P. Putnam's Sons

them in theory supplies of manufactured goods from the towns. In practice the peasants were having everything taken from them and receiving nothing. They responded by growing just sufficient for their own needs, and no more. Starvation threatened the whole country.

At this stage Lenin called a halt. The menace of famine was coming daily closer. The regime of relentless oppression could not go much farther. In the summer of 1921 Lenin compelled the Communist party to modify its policy and to abandon strict Communism. The New Economic Policy (popularly known as Nep) was instituted. Under this policy farmers and peasants were given the right to deal in their own products; private trade was permitted; the system of universal rationing was abandoned; payment by results

was restored in factories; and the former owners of small factories were encouraged to take back their old enterprises and to manage them independently. The state proposed still to keep all public enterprises and great industries in its hands.

Lenin sent out a twofold invitation to the world, for foreign capitalists to co-operate in developing the latent resources of Russia, and for foreign nations to help to relieve the coming famine. The first invitation received a meagre response. Britain, the United States, France and Germany had invested hundreds of millions of pounds in Russian enterprises and loans in the years before the revolution. Britain had led the way in the industrial expansion of Russia, largely through old firms of English merchants who extended wide credit to Russian traders. The British had also promoted many great mining and textile enterprises. French peasants had sunk their savings in Russian loans. America, through the National City Bank of New York and various insurance companies, had sunk much money in Russia. All these investments and enterprises had been confiscated by the Soviet government. It had ignored and repudiated the old imperial and municipal foreign loans. It had seized mines, factories and warehouses owned by foreigners and repudiated private as well as public debts.

The immediate demand of the great powers, backed by the international financiers, was that the Soviet government should recognize the old debts of Russia before seeking fresh credits. **Problems raised by debt repudiation** They did not ask that these debts should be paid immediately, well knowing that that was impossible. The Communist leaders could not, without betraying their Marxist creed, formally recognize old debts, but they suggested arrangements by which the foreign countries would obtain returns compensating them to some extent for their old losses. Krassin, who had now become the commissar for foreign trade, was especially active in seeking such a middle course. The Communist authorities declared that, while repudiating the old debts, they would meet all liabilities they incurred; and this they did. A few foreign firms

re-entered the Russian market, but generally their experiences were not satisfactory either to themselves or to the Communist government.

The appeal for humanitarian relief struck a more responsive chord. Dr. Nansen headed one great scheme, backed by the League of Nations. The British created their organization, and the Americans responded in wholesale fashion. The American Relief Administration, a semi-public body, was organized by Hoover on the scale and with the resources of a department of state. The administration in Russia was placed under the direction of a prominent officer in the United States army, Colonel Haskell. A large staff of picked men, mostly army officers and engineers, was brought in. The A.R.A., with its own fleet of ships, with scores of millions of dollars behind it, and with an organization military in its discipline and scientific in its arrangements, set to work from Odessa and the Crimea in the south to away beyond Petrograd in the north, and from the Urals to the Polish border.

The relief agents found themselves confronted by an appalling task. The railroads of the country had almost completely broken down. The famine

Difficulties of Famine Relief had already reached a stage where large communities, especially around the Volga, were confronted with absolute starvation. The economic system of Communism helped to make the famine much more severe than it otherwise would have been. In ordinary times, most peasants in the famine-stricken areas would have had reserves of grain and fodder to carry them over many months, for the Russian peasant stores his grain as others keep their money in a bank. But all reserves of food which had not been destroyed by civil war had been expropriated by the Communist government. Much of the grain from the peasants had been wasted by official mismanagement. When the first American relief agents reached Odessa they found people lying dying in the streets, scarce able to move, dying of hunger. When they traversed the villages of the steppes, they found a land like iron, with the very grass dead, and with even the camels—which are

supposed to be able to get a living from nothing—dying. Cities like Samara and Buzuluk were overwhelmed by armies of refugees from the villages, starving to death by the many hundreds. An epidemic of typhus accompanied the famine.

In most other countries an experience such as this, fostered, as everyone knew that it was fostered, by the incapacity of the government, would have meant the overthrow of the ruling power. But Russia had had enough of revolution. All the old leaders capable of stirring up revolution had been killed or were in prison or exile. There was no alternative to the Communist government, and the Communist government survived.

Meanwhile, the New Economic Policy was beginning to make its effects felt. Dzherzhinsky brought his great executive ability to the task of re-organizing and re-equipping the railroads. Shops **Beginnings of economic revival** re-opened in the great cities; restaurants, some of them of a sumptuous character, revived, and life became more normal. The Soviet government wisely reorganized its internal finances, and in place of the rouble, which had now sunk too low even for contempt, it established a new currency, the 'chervonitz,' based on a gold reserve. This reform was carried out very successfully. The value of the chervonitz was maintained in foreign markets at or near par.

The struggle over famine relief afforded the authorities an excuse to intensify the war upon organized religion. They demanded that the churches should surrender their selfish treasures, supposed to be of incalculable value, for famine relief. Patriarch Tikhon and the leaders of the Church, while declaring that they were willing to make sacrifices and help all that they could, maintained that church treasures were not theirs to surrender. A large number of church folk, including the patriarch, were arrested. Benjamin, the archbishop of Petrograd, a kindly and sincere prelate, was brought to trial for refusing to obey the government's order, and was sentenced to death and shot. All over the country men and women, priests and church workers, were sent to death or to long

terms of imprisonment. Parties of soldiers raided the churches. It was soon found, however, that the treasures were worth a mere fraction of what had been expected, and actual money obtained was comparatively little. But the issue served its purpose in stirring up a campaign among the working classes against the Church.

The Russian Church was also being attacked in two other ways. A group of reforming churchmen, including Archbishop Antonin, the archbishop of Nijni-Novgorod and Vvedensky, an eloquent and ambitious Petrograd incumbent, promoted a new movement, the 'Living Church,' which was to displace the patriarch and the older prelates. The Living Church was strongly supported by the Communist leaders, who saw here a chance to disrupt the religious life of the country. Its leaders summoned a council of the Church, and by all manner of political manipulation excluded the majority. They forced the deposition of the patriarch Tikhon, and made themselves the new governing body. With the support of Communist administration, they seized

great cathedrals and churches all over the land.

With much of the theory of the Living Church it is impossible not to feel sympathy. But in practice the leaders proved themselves the tools of the Communists for attacking and weakening religion. Their campaign failed to influence the mass of the people, who would have nothing to do with them. To them the old patriarch was still their father in God. The few churches left to the followers of the patriarch were crowded with worshippers, while the new were mostly empty. When Tikhon was released from imprisonment, having agreed to submit in temporal matters to the Soviet government, he was received everywhere as saint and hero.

Coupled with the movement of the Living Church to disrupt religion, came the violent attack of working-class and Communist organizations upon all religion. A cleverly illustrated paper, *Besbozhnik* (*'Without God'*) was widely circulated under

Organized attack upon all religion

official auspices. It contained the bitterest attacks upon all that Christians hold most sacred. The decrees against religion were being more strictly administered. It was now illegal to give class teaching in religion to young people under the age of eighteen. The Salvation Army, which had established itself on a small scale immediately after the first revolution, was suppressed. A group of leaders of the great Catholic Church, including Archbishop Zepliak and Archdeacon Budkevitch, were brought to trial in Moscow for offences against the religious laws of the state. Zepliak and Budkevitch were sentenced to death and the others to long terms of imprisonment. It was at first the intention of the Moscow authorities not to execute the death sentence, but their anger was aroused by strongly worded protests from abroad, particularly by an injudiciously violent protest from Poland. Budkevitch was shot, and the archbishop sent to solitary confinement. The judicial murder of Budkevitch did Communism great harm in the eyes of the rest of the world.

The campaign against the opposition Socialist groups, which had terminated in



PATRIARCH TIKHON

The Soviet government's demand for a surrender of the Church's treasures was met by an implacable refusal from Tikhon, the patriarch of Moscow and all Russia, who was thereupon arrested. His deposition was enforced by the 'Living Church.'

Photo, E.N.A.

their complete oppression, had its aftermath in the open trial of thirty-six Social Revolutionist leaders, who had been kept for years in prison. Everything was done to give the affair the air of a state ceremony, and to convict the Social Revolutionists of having conspired against the Russian people. Among the leaders brought to trial were Gotz, who had spent ten years in prison under tsarism, the revolutionist Donskoy, and others equally famous. A few of the prisoners submitted before the trial and turned against their comrades. The main body assumed an attitude of defiance, refusing to admit the right of the Bolsheviks to try them or the possibility of their obtaining justice before a Bolshevik court.

The Socialists of Europe had sent Vandervelde, the Belgian Socialist leader, to help to defend them. Vandervelde found his position impossible, and after a few days retired. The prisoners took every possible opportunity to interrupt the court and to defy it. 'I am completely indifferent about the sentence you will pass on me,' said one of them, Merusov by name. 'It has already actually been fixed by the Central Committee of your party. I despise it.' 'You can kill men,' said Gerstin, 'but you are powerless to annihilate ideas with bullets and bayonets.' The Communist authorities

organized working-class demonstrations in the streets against the prisoners, and one night a crowd of Communists burst into the court, stormed the platform where the trial was taking place, and seemed likely to lynch the prisoners. Twelve were sentenced to death, but their sentences were modified to imprisonment in strict isolation, subject to the good behaviour of other Social Revolutionists, who were warned that if they renewed their activities the sentence of death on their leaders would be executed.

Lenin, who had forced his party into more moderate courses, was stricken early in 1923 with serious illness and had to loosen his grip on the machinery of state. The opportunity was seized by the more extreme elements in the party to bring about a return to more active and



A SOVIET DICTATOR

Josef Vissarionovitch Stalin, born of peasant stock in 1879, became secretary of the executive committee of the Communists. As a Bolshevik leader he ousted Trotsky's party from power in 1927 and made himself virtual dictator.

Photo, E.N.A.

aggressive Communism. In this, Zinoviev, Lenin's old personal assistant, played a leading part and was assisted very largely by another rapidly emerging figure, Stalin, the secretary of the Russian Communist party. Stalin, a young, forceful Georgian, had by skilled political organization grasped the whole machinery of the party. He appointed his delegates as heads of the different groups of Communists in the country, forcing the local authorities to accept them. He maintained rigid discipline, so rigid that many murmurs were heard. A group of Communists, headed by Trotsky, demanded that the party government should be more really representative, and that peasants should have their interests more carefully studied. During the summer of 1923 the underground movements of the struggle could be heard, but for a time outward signs of it were suppressed so far as possible, largely because of respect for Lenin, who was then evidently nearing his end.

Nothing that skill or care could do was spared to prolong Lenin's life. The greatest physicians of Europe were summoned to his bedside. He was kept as

far as possible from every trouble and anxiety. But overwork and the fierce struggles of his earlier life were now exacting their penalty. Paralysis had come. On January 21, 1924, Lenin passed away at his country home about thirty miles from Moscow. His body was brought amid wide-spread signs of national grief to Moscow and was given a public burial in the Red Square a few days later.

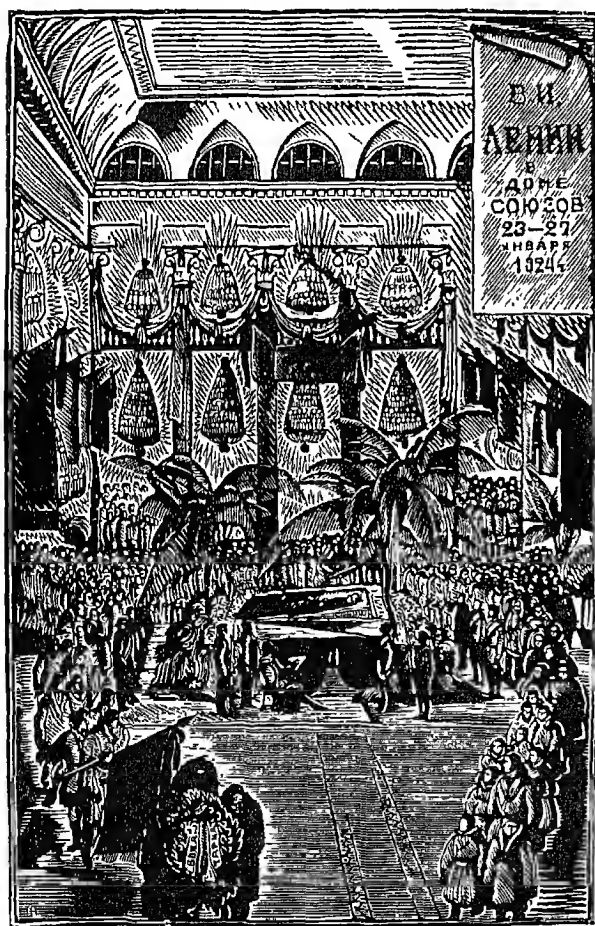
The scenes that accompanied the lying-in-state and the funeral were remarkable evidences of the hold this man had secured on the soul of the Russian people. The weather in Moscow was appallingly cold.

20° F. below zero. The body lay in state for days in the House of the Unions, a fine public building formerly the Nobles' Club. Hundreds of thousands of people poured in from all parts, standing in the streets for hours, waiting their turn to file past the corpse. On the day of the funeral half a million men and women paraded the streets for hours. The cold had now become still more intense, and thousands of victims of frostbite had to be admitted to the hospitals. But no cold could restrain the wave of emotion. It was a funeral such as few emperors have had.

The name of Petrograd was altered to Leningrad. Leninism became a semi-religious cult. The body of the leader was preserved and later on placed in a half-underground pantheon in the Red Square. This was visited daily by processions of people, like the shrines of the great saints of old.

Trotsky's friends claimed that Lenin, in his last illness, wrote a letter to the party to be read at their annual conference, a letter suppressed by Stalin and his friends, in which he declared that Trotsky, in spite of his too great self-confidence, was a devoted revolutionist and the outstanding member of the Central Committee. He further, they said, criticised Stalin as concentrating too much power in his own hands and being too brutal, and dismissed Zinoviev and Kamenev contemptuously.

One figure was conspicuous for its absence at the ceremonies, Lenin's greatest colleague, Trotsky. During the past few weeks he had flung himself in revolt against the men who were controlling the Communist machine. But the machine was stronger than even this man. He had broken down in health at the most critical hour, and had been ordered to the Crimea by his medical advisers. He had



RUSSIA'S GRIEF FOR HER LOST LEADER

Remarkable proof of Lenin's great power over the Russian people was shown by the surging crowds who waited for hours in the intense cold that they might have one last glimpse of their hero lying in state in Moscow, seen in this excellent woodcut. His great mausoleum stands in front of the Kremlin.

From *Friedrich Müller, 'The Mind and Face of Bolshevism,' Putnam's Sons*

been forced to resign his control of the army, and a campaign of vilification had been started against him by the party leaders. All day long during the funeral people had expected Trotsky, the man who had borne with Lenin the supreme task of making the revolution, to return, but no Trotsky arrived. Instead came a message of grief and sorrow from a railroad station on his way south.

With Lenin dead, the reactionaries within the Communist party had all their own way. A large number of members of the party who had set themselves to oppose the supremacy of Stalin were exiled or turned out of the ranks of the party. A series of decrees was passed modifying the New Economic Policy. Private trade was once more to be wiped out, this time by high taxes, and strict Communism was to come in again.

The attempt which was made during the summer and autumn of 1924 was a complete failure. Private traders, it is true, were largely compelled to close their doors, and private enterprise was once more heavily penalised. In many cities 90 per cent. of the private shops had to close. But the Communist machine was incapable of taking the place of the private trader.

Gravity of the economic situation From all parts of the country there arose bitter complaints from the peasants that they could not buy manufactured goods that they required. The peasants, who had revived their activities under the New Economic Policy, began to slow down again, and in the autumn of 1924 the government found itself faced by a serious economic situation. Once more the sporadic and spasmodic strike of the peasants all over the country had defeated the plans of the politicians.

Trotsky returned to Moscow in the summer of 1924, still under the deep displeasure of the authorities. That autumn he had once more to go south for his health, and during the winter of 1924-25 one group of extreme Communists would have had him shot as a disturber of party peace. Meanwhile economic events had been moving rapidly. Stalin, who a year before had seemed to incline towards rigid Communism, now changed his tactics,

after the fashion of Lenin, and became the champion of more moderate courses. In this he was supported by many of the old leaders. Trotsky, on the other hand, allied himself with his old enemy Zinoviev as a champion of stricter Communism. They tried to organize the anti-Stalin forces; but their plans were exposed, they were brought to trial within the ranks of the party, and Zinoviev was deprived of his position as head of the international Communist party and of the Leningrad Soviet. Trotsky was also disciplined.

Stalin was now endeavouring to place Russia on a sounder economic foundation. Greater facilities were again extended to all private traders, and everything was done to encourage foreign capitalists to enter the country. The machinery of state had been greatly improved since the early days of the Revolution. Officials had learnt the routine business, and many mistaken methods had been rectified. But any attempt by Stalin to encourage the peasant to increase his holdings and his output was at once regarded by the extremists as playing into the hands of the rich against the poor. Every effort to control the workers so as to place them under greater discipline and make them produce more met with very real opposition. The masses of the people had been systematically taught to hate the merchant and the bourgeoisie, and so when they found the government to some extent encouraging the merchants, real uneasiness was manifest, uneasiness which Trotsky, Zinoviev and their friends were quick to turn to advantage. They went so far during the summer of 1926 that they were brought to public trial within the party and still further disgraced. Zinoviev being deprived of place and power and removed from the leadership of the Communist International.

The malcontents refused to be put down. Repression was met by underground propaganda. On the tenth anniversary of the revolution, which was celebrated throughout the republic with great state, the reformers tried to stage an open demonstration in Moscow. This was suppressed not by troops, but by

large numbers of other workers. Trotsky was sent into exile in Turkistan, and in the early days of 1929 was expelled from Russia. Thousands of his followers were removed under administrative decree to the Arctic and Siberia. Some of the exiles recanted. Zinoviev was restored to a minor post, but an abler man, Bukharin, editor of *Pravda* ('Truth') and one of the stoutest leaders of Communism, expressed his discontent with existing conditions and was temporarily removed from office.

The Bolshevik government found itself hampered at every turn by lack of resources. Russia needed re-equipping with machinery of all kinds. Plants were exhausted and there was no money to buy fresh. Factories with broken and poor machinery were costly to operate; labour was inefficient, and consequently every kind of manufactured goods that people required was exceedingly dear. The break-up of many homes, due to the laxity of the Bolshevik marriage laws, helped to make large numbers of children homeless and ill-disciplined. There were many beggars in the cities and many unemployed.

The government tried to divert the wrath of the town workers against the peasants, by announcing that they were responsible for food shortage by hoarding stocks of grain. A punitive campaign against the peasantry in several regions began, but this defeated itself, for it still further reduced sources of grain supply. In the autumn of 1928 the food situation

became markedly worse, owing to a partial failure of the crops.

The government programme has more recently been marked by two main features, industrial expansion and centralised farming. Hundreds of millions of roubles were raised by heavy taxation and internal loans to advance the construction of big water-power, irrigation, electricity and manufacturing plants. Here the government was faced by two difficulties, the excessive interest that had to be paid on loans and the high cost of construction, which far exceeded what had been anticipated. The plans for centralised farming aim at the ultimate transformation of the peasantry into an industrial class, working on great state farms, as wage earners. This plan is regarded by the peasantry generally with suspicion and distrust.

The revolution divides itself roughly into two parts—the uprising, which was inevitable owing to the shortcomings of the autocracy, and the Communist dictatorship, which, by attempting to confine the administration of the country to a comparatively small political party and to wipe out all freedom of thought or action, produced a tyranny rivalling the one it had helped to destroy. Communism has succeeded politically and militarily, and has kept Russia together. But economically it has been a failure. It has shown that men cannot by decrees or resolutions prevent the operation of economic laws.



PATHETIC PLIGHT OF BOLSHEVIK RUSSIA'S DESTITUTE CHILDREN

One of Communism's most tragic products is the number of homeless children to be found in Russian cities under the Bolshevik yoke. Dirty and demoralised, these wretched urchins prowl the streets by night, sleeping in fitful snatches during the day. This huddled heap of sleeping humanity gives a representative idea of child life in the slums of many cities.

Photo, Topical Press Agency

SOCIALISM, COMMUNISM AND WORLD REVOLUTION

Theories and Policies which attack the Economic Order
based on Private Property and their Failure in Practice

By ARTHUR SHADWELL M.D. LL.D.

Author of *Industrial Efficiency*, *The Socialist Movement*, *The Breakdown of Socialism*, etc.

IT is difficult to say clearly and satisfactorily what socialism is, because few terms, if any, are used so loosely in so many senses. Socialists have themselves produced hundreds of definitions, and are constantly engaged in controversy about the true meaning of the term. Yet for that very reason an attempt should be made to define it.

The ground may be partly cleared by recognizing in the first place that socialism has to do primarily with economic conditions; and in the second place that it presents itself in three aspects: as an economic theory, an economic system based on the theory, and a political movement or agitation for securing power to set up the system. The three are mixed up by having the same label indiscriminately affixed to them. When, for instance, it is said that socialism has spread all over the world, the theory is meant; but when the only cure for various ills is said to be socialism, the system is meant; and when, again, the advance of socialism in this or that country is spoken of, the political movement is meant.

The idea comes logically and historically first, and it is the most difficult part of the subject, because of the interminable differences among socialists, and the confusion between economic and ethical aims to which those differences are largely due. For this reason it is most important to bear in mind what has already been said, namely, that the problem which socialists have set out to solve is primarily an economic one; it has to do in the first instance with material conditions, with the production and division of wealth. Such abstract principles as justice, equality,

freedom are contingent on the economic problem and depend for their realization on its solution. But many socialists put them first and make an emotional appeal to them. In reaching out after the ideal they overlook the real.

The resulting confusion is further increased by the practice of extending the idea of socialism, as a universal panacea, to many other large fields of thought and action, moral, social and philosophical. It is brought to bear upon

such questions as religion, Definition of moral law, free will, Terms Required crime and punishment, vice, war, patriotism, sex, marriage, the family, evolution, the state, revolution, the philosophy of history. The relations of socialism to these and other matters outside the proper sphere of economics are the subject of incessant controversy, not only between its advocates and its opponents but still more between the several sects or schools of thought bearing the same label. The result is an unparalleled confusion of ideas swirling round the subject; for sometimes one and sometimes another of its multitudinous aspects is put forward as its central or most important feature.

In order to escape from this maze and lay hold of something definite, at least as a starting point, the best plan is to disregard all differences and extraneous matters and fix attention on what is common to all the schools of socialism, for if there is anything on which they agree, that must be the heart of the matter. And there is something: it is condemnation of the existing economic order called capitalism. Strictly, complete agreement does not

extend beyond this, for some socialists content themselves with denouncing capitalism and predicting its collapse, without going any farther.

That was, in fact, the position assumed by Marx as economist. But his followers have never adhered to it; they have striven actively to assist and hasten the process, and the aim of abolishing the existing order must be added to its condemnation as common to socialists in general. That is, however, a purely negative attitude. Its positive counterpart and the logical sequel to abolishing the existing order is the substitution of some alternative, since economic life must be carried on; and though socialists

Common Ground for all Socialists in the past have paid much less attention to the problem of creating a new order than to doing away with the old, they have always assumed that there will be a new one fashioned by themselves. It will be socialism realized as an economic system.

There has never been agreement about the precise form of this hypothetical system or about the manner of effecting the change, and it is here that the chief difference between socialism and communism, in its modern sense, comes in. Socialism stands for peaceful, more or less gradual, change by constitutional means, that is, through the standing political machinery; communism for complete, sudden and violent change by revolutionary, non-political action. But the essential character of the change has always been thought of broadly in the same sense by all the schools of socialism. It turns on the legal principle of ownership. The present economic order rests on the principle of private or individual ownership. All socialists would change it for some form of public or common ownership, and their agreement, which does not extend any farther, warrants the conclusion that this is the central idea of socialism.

The idea is very much older than socialism as an organized movement. The latter dates only from the period following the conclusion of the great European wars in 1815, when the term was coined as a name for the movement then inaugurated; whereas the idea is a

legacy from remote antiquity. It is the lineal descendant of the ancient idea of communism, in its true and original sense, not in that current to-day and explained above. It meant having all property in common, as stated of the members of the Christian Church, founded by S. Peter: 'And all that believed were together and had all things common' (Acts 2, 44). In adopting this system, which was purely voluntary and did not last long, they were following precedents which reach back to the remotest antiquity.

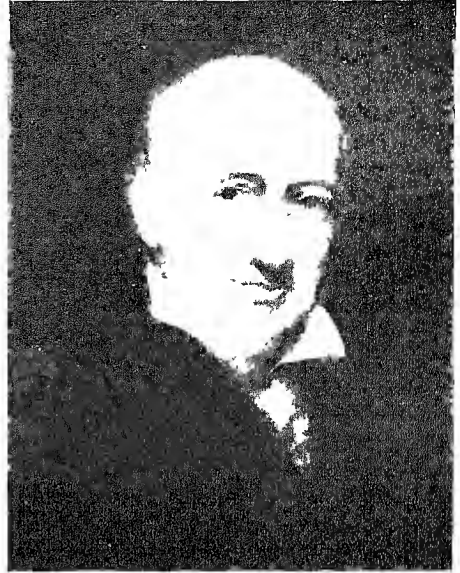
It is indeed generally assumed that common ownership preceded the institution of private property in the evolution of human society, and the hypothesis is reasonable; for private ownership, which consists in a right recognized by law, implies a considerable degree of civilization. Consequently 'primitive communism' is commonly spoken of as an economic system antecedent to any based on private ownership. There is not much direct evidence for it, but some is furnished by the practices of primitive peoples in our own time, though doubt has been thrown by modern research on the earlier conclusions of anthropologists on the subject, which have been too readily accepted. Professor Malinowski, whose thorough studies of the Pacific islanders have quite superseded the older authorities, says that their conclusions are based on hasty generalisation from superficial observation.

However this may be, it seems certain from the nature of things that some limited measure of common use, starting with the family and extending to the tribe or clan, must have preceded the general introduction of private ownership and use in a more advanced stage of civilization. In that case the various examples of partial communism in the ancient world may be regarded as relics of an obsolete system. The whole subject was discussed by Aristotle with his usual comprehensive grasp and sagacity; and his conclusions are so pertinent to the question that they are worth recalling. He pronounced in favour of private ownership in general on the ground of its superior economic efficiency, because things are better looked after by men who have a personal interest

in them, and for the sake of social peace, because men quarrel more when they have things in common. But he thought that the use of property should be freely shared by its owners with non-owners in a spirit of benevolence, which legislators should endeavour to cultivate. It must, however, be voluntary. Compulsory sharing by state regulation was condemned.

The judgement of Aristotle was endorsed and repeated in the thirteenth century in its application to Christian teaching by S. Thomas Aquinas; and its validity has been proved by the results of the principle of common ownership. The survival of the idea was largely due in the ancient world to the myth of the Golden Age, when men had all things in common and evil did not exist, and to the early Christian vision of the millennium, which represented a return to the Golden Age. Many of the experiments have been made under religious influences, and they have lasted longer than the secular ones; but whether religious or secular they have all consistently failed through economic inefficiency or internal dissensions or both. Nevertheless the idea persisted. Sir Thomas More adopted it for his *Utopia* (1516), and its revival in the eighteenth century was the forerunner of socialism.

In France Jean Meslier (d. 1733—his Testament was published in 1764), Morelly (Code de la nature, 1755), Mably (De la législation, 1778), all advocated communism. In England Thomas Spence (The Mode of Administering the Landed Estate of the Nation, 1775) and William Ogilvie (The Right of Property in Land, 1782) advocated land nationalisation; William Godwin (Enquiry concerning Political Justice, 1793) condemned private property altogether and advocated pure communism on an individualistic, that is anarchical, basis without the state. These were all theorists; but Morelly's sketch of an ideal society inspired, after the French Revolution, a movement for establishing state communism in France. This movement, carried on by Gracchus Babeuf and the 'Society of Equals' (see page 4143), was the first project and concerted attempt to institute a planned system of national



ANARCHY'S ADVOCATE

William Godwin (1756–1836) made an influential contribution to contemporary political thought in his *Enquiry concerning Political Justice*, published 1793, in which anarchic doctrines, incorporating intensive communism, are preached.

National Portrait Gallery, London

economy on communist lines, thirty years before the rise of socialism. Nor was any second attempt made for more than fifty years. To these eighteenth-century forerunners should be added the name of Hugo, the German jurist, who attacked the institution of private property from the juridical standpoint in 1799.

Among the writers named Mably and Godwin deserve particular mention, because they discussed the underlying ethical principles of equality and justice, to which socialism makes an emotional appeal, much more thoroughly than any modern socialists, who indeed have not discussed them at all, but merely claim them as attributes of their proposed system, without any attempt to show how or why it would realize them.

The ground was further prepared on the theoretical side for the advent of socialism by other writers early in the nineteenth century. The most outstanding names in France are Claude de Saint-Simon (1760–1825) and François Fourier (1772–1837), whose disciples eventually formed rival schools of socialism. Saint-Simon's earliest work was a pamphlet,

called *Letters from a Resident in Geneva* to his Contemporaries, published in 1802. It contains in embryo the principles of his proposed reorganization of society, afterwards developed in other works published at intervals until his death. He was a man of essentially constructive mind and more occupied with projects for promoting material progress than with existing defects, on which he wasted no time; but he was the very reverse of a systematic thinker, though full of ideas, which stimulated other minds.

The letters from Geneva were a plea for the endowment of men of genius with a view to the organization of national economy and the administration of affairs by the ablest men in science, art and industry. This was always his leading thought. He was the only man in the whole range of socialist literature who fully realized the practical importance of intelligence in the direction of economic activities in order to secure production, wherein he anticipated one of the latest discoveries of Continental socialists, who have shown a tendency to resuscitate him. He laid particular stress on science, in



FRANÇOIS CHARLES FOURIER

Born at Besançon in 1772, François Charles Fourier devised a new social system which is described in his works, of which the *Theory of the Four Movements* (1808), and *The New Industrial World* (1829) are the most notable.

which he had been educated, and projected the conception of the state transformed from an organ of authority over men in the hands of politicians into one for the administration of affairs by the ablest men of science. This idea was taken up by Marx in the form of the theory of the 'withering away' of the state, and it is much in favour to-day with some socialists. Saint-Simon proposed that the supreme intellectual or spiritual authority should be wielded by savants and artists and the temporal authority by industrialists, including workmen; and that the first aim should be to 'ameliorate as quickly as possible the lot of the poorest and most numerous section of the people.'

In his last work, published posthumously in 1825 under the title of *The New Christianity*, he urged that the conduct of the new order should be guided by the Christian moral law. He relied entirely on persuasion for its introduction and expressly repudiated the use of force. The notion that he was a dangerous revolutionary and the catspaw of secret conspirators is absurd; the early socialists were none of them such.

François Fourier was nearly contemporary with Saint-Simon. In 1808 he



CLAUDE DE SAINT-SIMON

The French reformer Claude de Saint-Simon advocated a new order of society embodying an aristocracy of intellect. His theories, which were never read, are chiefly expounded by him in *The Industrial System*, 1821.

published his first work, the *Théorie des quatre mouvements*, in which the need for an economic reconstruction of society was urged in connexion with a general philosophical theory of harmony in the universe and a special psychological theory, curiously anticipatory of psycho-analysis, that vice and crime are due to repressed passions. He called for co-operation in industry and social harmony, and drew up an elaborate scheme of organization, which did not, however, include the abolition of private property or capital. He recognized, though less fully than Saint-Simon, the importance of intelligence or 'talent' in industry, and laid down a division of the product in fixed proportions—five-twelfths to labour, four-twelfths to capital and three-twelfths to talent. Like Saint-Simon and unlike most socialists he had some knowledge of business; but his plan for putting his system into operation was the impracticable one of setting up small model communities after the manner of those established by religious bodies and mentioned above.

In England other ideas were brought forward about the same time. In 1805 Charles Hall, a medical man, struck a new note with his *Effects of Civilisation on the People in Euro-*

Economic indictment of Capitalism *pean States, and laid the foundation of the economic indictment*

of capitalism, which became and still is the main preoccupation of socialists, by pointing out not only the contrast between rich and poor, which had been done by Tom Paine in his *Agrarian Justice* (1797), but also the exploitation of the wage earners, who produce the existing wealth but enjoy only a fraction of it, because the greater part is taken by the owners in the form of rent and interest. All later economic arguments are merely elaborations and variations of this theme.

His chief remedy was less original. Like the writers just mentioned he advocated nationalisation of the land, and for its cultivation partition among individual holders, as in the Russian Mir system. He founded no school at the time, perhaps because the war with France absorbed public attention. It was not, in

fact, until after the war that socialism took shape as a concerted movement by the formation of societies for the propagation of the various theories brought forward under that name, which was then coined. And when this took place attention in England was monopolised by Robert Owen; but the school he founded was greatly influenced by the ideas of Hall on the exploitation of wage earners.

Robert Owen (1771-1858: see page 4280) began as a benevolent employer and social reformer. The starting point of his socialism was the theory first put forward in 1813, that character is de-

termined by environment, **Theories of that there is no free will and Robert Owen that belief in the moral law inculcated by religion is the cause of all social evils. Put men in the right surroundings, make them comfortable and they will do right. This theory, implied or expressed, is at the bottom of all forms of sentimental socialism, although it is in flat contradiction with the character assigned by the same socialists to the comfortable classes, who are habitually accused of greed, selfishness, hard-heartedness and tyrannical conduct. Owen was more original and better inspired in advocating the constructive principle of co-operation, as opposed to competition, in industry. It is a fundamental idea, very much alive to-day; but, like other fundamental ideas, susceptible of various interpretations. Owen's plan for realizing it was the old one of establishing limited communistic societies on a voluntary basis. He brought this forward in a memorandum presented to a parliamentary committee on the poor law in 1817, and it attracted much favourable attention.**

Like Saint-Simon, Owen had an essentially constructive mind and an unshakable confidence in his own ideas. Both men were full of projects—entirely different projects—which they pressed on rulers, statesmen and the world at large in the certain belief that they had only to be understood in order to be taken up and realized at once. Both impressed their personality on younger men, who formed societies for the propagation of their teaching. It was in these societies that socialism first became a cult or

concerted movement, marked by the appearance of the term.

This happened about the same time, but quite independently, in England and in France. The earliest appearance in print of the word socialist that has yet been discovered (by Max Beer) was in the *Co-operative Magazine* for November, 1827. This monthly periodical was issued by the London Co-operative Society, founded in 1824 for the discussion and propagation of Owen's theories; and the meaning of the word is explained. It

turned on the question of the ownership of capital, whether this should be individual or common. The

orthodox economist thought it should be individual; 'those who thought it should be common were the Communists and Socialists.' At this time, when communism still retained its old meaning of community of goods, the two were used indifferently as equivalents. In France, the word *socialisme* was coined about 1830 by Pierre Leroux, a member of the Saint-Simonian school; it occurs in *Le Globe* of February 13, 1832, the official daily paper of the school presented to it by Pierre Leroux.

The speculative ideas formulated by forerunners and leading up to this development have been explained. But other influences contributed to it and must be taken into account. In the first place the conclusion of the war of 1815 and the transition to peace caused a general economic collapse similar to that following the war of 1914-18. The resulting widespread unemployment and suffering heightened the contrast between the haves and the have-nots and brought out into strong relief, especially in England, the ill effects of the Industrial Revolution which had been developed during the preceding four or five decades. The prosperity it had brought disappeared with a sudden rush and left only the seamy side exposed. The inevitable consequence was general discontent, breaking out into occasional disorder.

This state of things, so contrary to the humanitarian spirit then rising, naturally stimulated the tendency to question the existing economic order and the principles on which it was based, with a view to

finding an ideal alternative; and a further stimulus was furnished by the rising interest in political economy, which invited speculation on the subject of wealth, its production and distribution. The current theory of the day was, on the one hand, all in favour of free enterprise and free competition, but on the other appeared to assert the proposition that all exchangeable value was created by 'labour.' Since, however, labour, in the sense of the wage earners, received only a fraction of the value created, and competition tended constantly to depress even that fraction to the lowest level compatible with existence, there was something manifestly wrong with the system and the economic theory that supported it.

All these influences ran together to form a broad stream by which the new movement was floated on and up. The wretched condition of the wage earners appealed to humanitarian sentiment, and the depression of trade that caused or accompanied it gave point to the attack on the principles of private enterprise and free competition ('laissez faire') upheld by orthodox economists, while the labour theory of value called in the sense of justice to strengthen the case. That theory had found its most complete expression in David Ricardo's *Principles of Political Economy*, published in 1817. In 1819 Sismondi, the Swiss economist, published his *New Principles of Political Economy*, in which he made the first formal attack on 'laissez faire' economics and, basing his argument on the labour theory of value, maintained that rent, interest and profit represented the 'surplus value' created by labour and appropriated by others. He was not a socialist; but his theory, which gave a technical form to Charles Hall's earlier criticisms, was too well suited to the cause to be neglected by socialists. It was taken up in England by Owen's disciples, and notably by William Thompson, who published his *Inquiry into the Principles of Distribution of Wealth* in 1824.

The theory of surplus value, on which Karl Marx's *Das Kapital* is built, was taken from him and from Sismondi. Thompson postulated the juster distribu-

tion or, rather, division of wealth as the great economic problem to be solved, taking production for granted; and all but the most modern theories of socialism have ever since put the problem of distribution in the forefront. He attributed the existing disparity to the fact that capital was possessed by one set of individuals and labour by another, and held that they should be in the same hands, to which end all productive labourers should become capitalists. This was to be accomplished in the Owenite co-operative communities.

Meanwhile, in France, the Saint-Simonian school, founded about the same time, was growing, and became very active about 1830. They also started from the same fact of disparity and stressed the distinction between earned and unearned income, which is the problem of surplus value regarded from a slightly different point of view. But their remedy was different. They sought no artificial equality and repudiated community of property. The principle they adopted was

from each according to his
 Saint-Simonian capacity, to each according to his
 Socialism works, which implies
 inequality. Their remedy

for unearned income was the abolition of inheritance, whereby land, capital and the means of production would be gradually transferred to the state, but the state as conceived by Saint-Simon and explained above, not the ordinary state.

This school soon developed internal dissensions and began to split up. As an organization it fell to pieces in 1832, but propagation of socialism by individuals and groups proceeded apace and developed innumerable sub-varieties.

Up to 1830 the movement was wholly intellectual in both countries, but after that date it was reinforced by the entry of wage earners on the scene. In England, where trade unions had been legalised in 1824 and had grown rapidly, the National Union of Working Classes and Others was formed in 1831. It was a mixed body, with headquarters in London, where weekly meetings were held; and it was first occupied mainly with political and social reforms. But it gradually developed a socialistic tone under the influence of

the theory taught by Thompson, Hodgskin and other Owenite writers, that labour produces everything and ought to enjoy the whole product, but is exploited by capitalists. (See further in page 4671.)

In France, where trade unions were prohibited and the general atmosphere was different, the same elements were present, but asserted themselves in a more explosive manner. In 1831 the weavers of Lyons demanded a minimum living wage, and on its being refused

rose in arms, descended on the town and put the authorities to flight. Other

disturbances followed, and in 1834 a more serious rising occurred at Lyons, where the insurgent workmen in their desperation fought the military for five days. It was in connexion with these troubles that Pierre Leroux, a Saint-Simonian socialist, formulated the division of society into two classes—namely employers and employed—and called them 'bourgeoisie' and 'proletariat.' The stirring events of the time stimulated theoretical socialism to great activity and elicited a flood of ideas from the younger men.

From 1835 onwards the teaching of Fourier was taken up and developed into a rival school to the Saint-Simonians. In 1840 Louis Blanc, who had belonged to the latter, published his celebrated Organization of Labour, in which he adopted the motto 'to each according to his needs, from each according to his capacity,' laid down the principle of work or maintenance and advocated a sort of guild socialism. Industries were to be run by the workmen engaged in them, who would be started and provided at first with the necessary means by the state. In the same year Etienne Cabet published a Utopian romance called Travels in Icaria and revived the idea of the communistic settlement; while Pierre Proudhon startled the world with his first work entitled What is Property? to which the answer was 'property is theft.' Two years later, in 1842, Constantin Pecqueur published his New Theory of Social and Political Economy, in which he advocated the suppression of individual ownership, the socialisation of all forms of capital and the conduct of industry by the state.

In this period Paris was a factory for the production of socialist theories and schemes, while Chartism was agitating England and a revolutionary ferment was rising in central Europe. As it advanced it became associated, through the formation of secret revolutionary societies, with the idea of communism, and that term then acquired the meaning, which it has to-day, of violent revolutionary action as distinguished from the peaceful voluntary transition advocated by all schools of socialism. Exiled Germans were particularly active in this sort of communistic agitation. They took refuge in Switzerland, England and Belgium, but above all in Paris, then regarded as the Mecca of freedom. In 1843 Karl Marx came there from Germany, where he had edited an advanced Radical journal.

He was twenty-five years old and at that time knew very little about socialism; but in Paris he met prominent French socialists and imbibed their ideas. In 1845 he was expelled and went to Brussels, where he joined a secret German society called the League of the Just, which in 1847 was transformed into the Communist League with headquarters in London. For this body he wrote, in conjunction

with Engels, whom he had met in Paris and Brussels, the Communist Manifesto which contained an outline of his theories and in particular preached the class war. In 1848 the storm that had long been brewing burst with the revolution of March in Paris, followed by revolutionary risings in Belgium, Germany and Austria. Their failure, the breakdown of socialist experiments in Paris and the collapse of Chartism in England, brought the first period of socialism to an end.

We have treated it fully because the whole evolution of socialism as theory belongs to this period. All the original and creative ideas covered by the term were brought forward then; everything since in the field of ideas

has been only repetition. **Socialism in its and elaboration or revival. Political Aspect**

When socialism re-appeared after the eclipse that followed 1848, it did so as a political movement based on the earlier ideas, and so it continued down to the Great War; there was nothing fresh about it. We know it, in fact, mainly as an organized political movement, carried on in each country by a party striving for power, like other political parties, but with ends of its own handed down from the period with which we have been dealing. It will, therefore, be convenient to follow the historical sequence and take the political aspect now.

In this respect also the earlier period furnishes a precedent in Chartism (see also page 4435), which was an organized campaign for securing political reform and a more democratic constitution in the United Kingdom; originally with a view to promoting the economic changes demanded by socialism, though these rather fell out of sight in the ardour of the conflict. Chartism differed, however, from the political socialism of more modern times in that it made no attempt to form a parliamentary party, but sought only to influence Parliament by agitation in the country, popular demonstration, petitions to Parliament and similar means, which were in themselves constitutional but not easily restrained within constitutional bounds. There inevitably developed a revolutionary left wing, which advocated 'physical force,' split the movement,



PIERRE JOSEPH PROUDHON

The French political philosopher Pierre Joseph Proudhon (1809-65) launched his fierce attack on property in an essay which appeared in 1840. He takes an important place in socialist thought as the supposed originator of anarchism.

discredited it and caused its collapse. The political socialism that came later was of a different character, more systematic and regular, less excited, though its purpose was fundamentally the same. It originated in Germany and had no connexion with Chartism.

The German movement, which was destined to spread throughout the world, had a double origin in two schools of thought, of which the founders were Ferdinand Lassalle (1825-64) and Karl Marx (1818-83), both members of well-to-do middle-class Jewish families. Lassalle led the way with an

Ferdinand Lassalle address to Berlin work-
and Karl Marx men in 1862 and a

pamphlet written for a labour congress at Leipzig in 1863, and known as the Open Reply. He drew his inspiration chiefly from Louis Blanc, aimed at the organization of labour with state aid for the self-control of industry and advocated the formation of a political Labour party. This took shape as the General German Workers' Union founded in the same year. He died from the results of a duel in 1864, but his disciples carried on the organization so begun. In 1869 a rival organization, called the Social Democratic Workmen's Party, was started by the disciples of Marx; and for several years the two competed for support among the working classes, but came together in 1875, when they adopted a joint programme.

Marx himself was all this time living in London, whither he had retreated after the failure of the attempted revolution of 1848 in Germany, in which he had taken part. In 1859 he published his *Critique of Political Economy*, which contained an outline of the arguments afterwards elaborated in his principal work, *Das Kapital* (Vol. I published in 1867); in 1864 he played a leading part in founding the International Association of Working Men (afterwards known as the First International). It was nominally an organization of British trade unionists, but was inspired by Marx and used by him to propagate his theories. In England, where it was born, it met with very little response; but it helped to plant the seed of Marxian socialism on the Continent in the years



FERDINAND LASSALLE

Ferdinand Lassalle (1825-64) assisted in the organization of the General German Working Men's Association in 1863. Unlike Marx, whose ideas were international, Lassalle confined his activities to the workers of Germany.

before the Franco-German War of 1870-1, after which it was moribund, lingering till 1876, when it was formally buried.

Such was the origin of political socialism, as we know it; but it did not become effective, even in Germany, until 1871, when two socialists were elected to the Reichstag, and not until many years later in other countries. Its subsequent advance down to 1914 can be summarily stated in terms of election results.

Germany takes first place as the country of origin, which gave a lead to the rest of the world and furnished the predominant formula. The following table gives the results of successive Reichstag elections:

Year	Votes Cast for Socialists	Socialists elected
1871	124,655	2
1874	351,952	10
1877	493,288	13
1878	437,158	9
1881	311,961	13
1884	549,990	24
1887	763,128	11
1890	1,427,298	35
1893	1,786,738	44
1898	2,107,076	56
1903	3,010,771	81
1907	3,259,020	43
1912	4,250,329	110



A GERMAN LEADER

From 1864 August Bebel (1840-1913) was identified with the German working-class movement. In 1871 he became a member of the Reichstag, where he was the recognized leader of the Social Democrats until his death in 1913.

In the forty-one years covered by the table the votes cast for Socialist candidates increased from 3·2 per cent. to 34·8 per cent. of the total, and the Social Democratic party had grown from the smallest to the largest group in the Reichstag, with 110 out of 397 members. Between 1878 and 1890 their advance was to some extent checked by a repressive law; but the great progress subsequently made was coincident with the period of Germany's most rapid industrial expansion and economic prosperity.

The rise of political socialism in Germany epitomises the whole movement, in which the Germans led the way, in time, in numerical strength and in doctrine. One reason for their success was the fact that after the fusion of the Lassalleans and Marxians in 1875, noted above, they remained a united body. There were internal differences, but no secessions or rival organizations, as in most other countries. This unity was due mainly to the German sense of discipline, but it also owed much to the political sagacity of August Bebel (1840-1913), who had been active in founding the Marxian move-

ment in 1869, was elected to the Reichstag in 1871 and remained the parliamentary leader of the party until his death in 1913. He was originally a workman, a wood turner by trade, but in 1864 he set up for himself and became a successful manufacturer. Another reason for the advance of the party shown above was the hold it obtained on the largest of the several trade-union groups, namely, the free or social-democratic unions, which were originally started about 1865, but only attained large proportions after 1890.

Before proceeding to the rise of political socialism in other countries it will be convenient here to explain the policy of the German Social-Democratic party, whose principles and programme served as

The German Social-Democratic Party

a model for the rest, were adopted by most socialist organizations and influenced all. It has already been stated that the rival schools of Lassalle and Marx came together and formed a united party in 1875. The name adopted was Socialist Workmen's (or Labour) party, but the term Social Democratic or simply Socialist party was more commonly used. The programme declared the aim to be the emancipation of the working class by conversion of the means of work into common property, and proposed the establishment with state assistance of socialist productive co-operatives under democratic control—that is, Louis Blanc's system.

In 1891 this was completely altered and a purely Marxian programme adopted in the famous Erfurt programme, proclaiming the class war and the inevitable failure of capitalism through increasing misery, for which the only remedy was the conversion of private ownership of the means of production into social ownership. This contains all the essential elements of Marxian socialism, which was made up of ideas derived from various sources and worked together into a connected whole. The philosophical basis was Hegel's interpretation of history as a process of evolution carried on by the resolution of two opposed ideas into a new one; but for opposed ideas Marx substituted two opposed economic classes, namely the bourgeoisie and proletariat, into which

Leroux had suggested that society is divided, as explained above.

Hegel and Leroux together provided the formula of the class war, which must inevitably end in the break-up of the present economic (capitalist) order through the working of its own internal laws that involve the progressive oppression of the many, who grow more numerous, by the few, who grow fewer through the concentration of capital, and live by the appropriation, in the form of profit, interest and rent, of the surplus value created by labour, as Sismondi, Thompson and other English Socialists had argued. The remedy is the system of state ownership advocated by Pecqueur.

Such is the 'scientific socialism' which inspired the German Social Democratic party and all its imitators for so many years. The 'science' in it was the law of evolution by economic class conflict (the materialist interpretation of history) and the law of capitalist production by surplus value. It has not stood the test of time and criticism, but it nominally held the field up to the Great War and is still taught by the revolutionary left wing, who call themselves Communists. The immediate object of the Social Democrats was to conquer political power through the electorate and then establish socialism.

In France this doctrine first gained a hold in 1879, when it was adopted under the influence of Jules Guesde at a labour congress held at Marseilles,

Rival Sects in France to which intellectuals were admitted. A long period of confused strife followed, in which different socialist sects contended for control of the trade unions. The latter were very weak before 1884, when they were legalised, but after that they grew rapidly and in 1886 formed a federation, which adopted Marxian socialism. This led to the rival trade-union movement of syndicalism in opposition to state socialism, initiated in 1892 by the trades councils or 'bourses du travail' and established on a firm basis by fusion with the other federation in 1902.

Thenceforward the weight of trade unionism in France was against political socialism. To this cause of weakness was added the division of socialists into several

groups, which, together with frequent changes, make a simple numerical statement of parliamentary strength difficult or misleading. They first tried to enter the Chamber of Deputies in 1885, but without success; in 1889 seven were returned; in 1893 they numbered 43, and in 1898 about 50. In 1905 the two principal parties coalesced and the subsequent result of elections can be stated thus:

Year	Votes cast for Socialists	Socialists elected
1906	877,999	54
1910	1,106,047	76
1914	1,391,373	102

The Chamber consisted of 597 deputies, so that the socialists were relatively weak. The policy of the unified party was based on the German Erfurt programme—class war, increasing misery, socialisation.

The revival of socialism in England occurred nearly ten years later than in France and twenty years later than in Germany, whence it was

imported. From the first **Socialist revival in England** the movement was divided into groups and it did not

assume political importance until 1900. The earliest organizations were the Social Democratic Federation, which took that title in 1884, but had been originally started without it in 1881; and the Fabian Society, founded in 1884. The Independent Labour party followed in 1893. These were—and are—the most important societies, though not the only ones. They all represent the constitutional type of socialism, and differ rather in the degree of definiteness and the stress laid on particular points than in aims or principles. The S.D.F. is frankly Marxian, and emphasises the class war; but all were inspired by the Continental idea of state ownership of land and industrial capital—otherwise collectivism.

From time to time other more revolutionary organizations have been formed by the secession of left-wing members, such as the Socialist League, which broke off from the S.D.F. in 1884. Socialism began to penetrate the trade unions about 1887, and this led to the foundation of the Independent Labour party for the purpose of carrying on their conversion more systematically. In 1892 two Socialists were

elected to Parliament, but there was no Socialist party before 1900, when the Labour party was founded under the name of Labour Representation Committee. It was formed of socialist societies and trade unions, and its progress before the Great War was as follows :

Year	Votes cast for Socialists	Members elected
1900	62,698	2
1906	323,196	29
1910	505,690 (Jan.)	42 (Dec.)

In 1914 the Labour party officially adopted the formula of collective socialism. It had previously refused to make a confession of socialism a condition of affiliation, in order to avoid alarming the trade unions, but its policy had always been determined by the socialists.

Other European countries are less important and can be briefly dismissed :

AUSTRIA : Organized socialism dates from 1888 ; members elected to the Reichsrath (membership, 516) were : 1897, 17 ; 1901, 10 ; 1907, 87 ; 1911, 82. Principles and policy the same as those of German Social Democrats, but the party much weaker in the trade unions, being opposed by the Christian unions, who were relatively stronger than in Germany.

BELGIUM : Organized socialism dates from 1885, when a Labour party was formed ; members elected to the Chamber (membership, 166) : 1894, 28 ; 1911, 35 ; 1912, 39. Programme modified German—class war and nationalisation of land, etc., but national services to be administered by autonomous corporations, not by the state. Co-operative societies highly developed by socialists.

DENMARK : A Social Democratic party formed in 1878 ; members elected to Folketing or House of Commons (membership, 114) : 1844, 2 ; 1900, 12 ; 1906, 24 ; 1913, 32. Policy based on Erfurt programme.

FINLAND : Labour party formed in 1899. Constitution secured in 1906, women given the vote and seats in National Assembly. Socialist members elected : 1907, 80 ; 1911, 87 (9 women) out of 200 ; they polled 40.1 per cent. of the votes. Policy based on Erfurt programme.

HOLLAND : Social Democratic Labour party formed in 1894, in opposition to a communist movement started in 1888. Members elected to lower Chamber (membership, 100) : 1897, 3 ; 1901, 7 ; 1905, 7 ;

1910, 7. Policy moderate German, opposed by a small revolutionary party.

ITALY : Socialist party formed in 1892. Members elected to Chamber of Deputies (membership, 508) : 1892, 6 ; 1897, 16 ; 1900, 32 ; 1904, 23 ; 1910, 40. Policy based on German. Movement weakened by dissensions and revolutionary elements.

NORWAY : In 1885 a Social Democratic Federation was founded, and two years later a Labour party. Members elected to the Storting or National Assembly (membership, 123) : 1903, 3 ; 1906, 10 ; 1909, 11 ; 1912, 23. Policy German.

SPAIN : The political movement in Spain is more revolutionary anarchism than socialism, but there is a small Socialist-Labour party, which in 1910 had one member elected to the Cortes.

SWEDEN : In 1887 a Social Democratic Labour party was formed. Members elected to Lower Chamber (membership, 230) : 1896, 1 ; 1903, 4 ; 1906, 13 ; 1909, 33 ; 1911, 64 ; 1914, 87. Programme based on German.

SWITZERLAND : A Social Democratic party formed in 1870, an off-shoot from Germany. In 1888 a unified party formed after various dissensions. Members elected to National Council (membership, 167) : 1905, 2 ; 1908, 7 ; 1911, 15. Policy mainly German.

RUSSIA : Socialism was illegal and severely repressed before 1917, but revolutionary agitation on the lines of the Communist Manifesto and of anarchism had been carried on by intellectuals since 1863. The German type of Socialism began to spread surreptitiously in the 'nineties after suppression of anarchists ; meetings were held and papers published abroad ; split into Social Democrats (Marxian) and Social Revolutionaries (Non-Marxian) ; in 1903 former split into Bolsheviks (majority) and Mensheviks (minority) ; Bolsheviks for extreme concentration and violence, Mensheviks for more moderate and constitutional action ; in revolutionary risings of 1905 a workers' council (soviet) formed in St. Petersburg. In 1910 there were 16 socialists in the Duma (432).

Of the remaining European countries it need only be said that political socialism gained a footing and spread everywhere in this period, largely through the influence of the Second International, founded in 1889 partly at the instigation of the British Trades Union Congress. Two rival congresses were held that year in Paris, but the next one, held in Brussels in 1891, was a joint affair. In 1893 the anarchist section was expelled. The organization grew rapidly, and in 1900 was placed on a permanent footing ; at the congress

held at Copenhagen in 1910 thirty-three nations were represented, including Persia, Japan, South American states and British Dominions. It had spread over the world. The policy was Marxian of a moderate kind, and the German Social Democrats held the lead; but except as an agency for propagating socialism the International exercised no influence, and it especially failed in the prevention of war, which was one of its chief objects.

Of non-European countries two have a particular interest, though for different reasons, and deserve separate mention. They are Australia and the United States.

The socialist movement in Australia was started about 1885 by William Lane, an Englishman and a journalist, with the aid of some emigrant members of the English Socialist League, mentioned above.

Leading events and dates are:

Socialism in Australia 1890, Australian Labour Federation formed, and great strike of sheep-shearers in Queensland; 1891, general shipping strike, 37 socialists returned to state legislature of New South Wales; 1893, 80 socialists in state legislatures, while Lane went to Paraguay to found New Australia; 1901, Commonwealth established; 1904, Labour party assumed office as largest party in Commonwealth Parliament; 1908, Labour party again takes office, after being turned out in 1904; 1910, Labour party secures majority in both Chambers; policy: nationalisation of monopolies, government steamships and sugar refinery, rejected on referendum. In the course of twenty years political socialism had achieved more success in Australia than in any other country. Before the Great War it held the reins of power in the Commonwealth and in three of the six provincial legislatures.

To turn to the United States, in 1871 the First International was nominally transferred to New York, and from that time onward several socialist societies were founded; in 1877 three of these combined to form the Socialist Labour party, a strictly Marxian organization. It never attained much strength and on the appearance of a rival twenty years later it wasted away; on several occasions it ran a candidate for the Presidency with insignificant results. The rival was the

Social Democratic party, formed in 1898; in 1901 it absorbed some other societies and changed its name to the Socialist party. It was more successful than the older body and in 1912 its candidate for the Presidency polled 800,000 votes (out of 17 millions), showing a great advance on its first attempt in 1900, which yielded 97,000 votes (out of 14 millions). Its policy

was also Marxian, but of a moderate kind. Political socialism has had a moderate amount of local success, but in no industrialised country is it so weak. The chief reason is the steady and uncompromising opposition of the principal trade-union organization, the American Federation of Labour. It may be laid down as a general proposition that political socialism is weak or strong in every country in proportion to the support secured from trade unionism.

It has been shown in the preceding pages that the primary aim of modern socialism, which is the conquest of political power in order to establish a new economic system in place of the existing one called capitalism, had been achieved before the war in one country only, namely Australia. In others it had made a progressive advance in that direction; in some cases more, in others less. As a whole the movement was going forward, both intensively and extensively, but gradually; confident of eventual success, but not anticipating it in the near future.

That situation was dramatically changed by the war. The first effect was to suppress the International and stop the political movement, completely in belligerent countries, less so but still sufficiently in others. The great bulk of the socialists everywhere rallied to the patriotic call and supported their governments. But that very action had another side, which was not perceived at the time. It put the socialist parties in a new light and raised them in general estimation. They not only supported the national cause, but in some countries, of which Great Britain was one, individual members joined with other parties and shared in the administration. By so doing they really served their own cause far better than the few exceptions,

who held aloof or actively opposed the government. They won favour in previously hostile quarters by showing that they could put national interests before dogma, and they prepared the world for the possibility of socialist administration.

They reaped their reward after the war in a great accession of strength and a new status in the political world. If they later lost ground again, as they did in certain countries, it was due to their own failure

and the excesses of the left wing. But the immediate sequel of the war was in several instances

to place in their hands, partly or wholly, the political power for which they had been striving ever since the movement began, and to furnish the opportunity of realizing their economic aims. So for the first time in history we have been enabled to see modern socialism in being, as distinguished from the old, isolated communistic settlements, and to study it as an economic system.

The great example is Russia, which receives full treatment on the historical side in Chapter 184. The leading principles of the Bolshevik organization were community or state ownership and workers' control. The whole economic apparatus was taken over and nominally communalised. The market, buying and selling were abolished and replaced by a system of exchange between rural and urban producers conducted through official agencies, and of distribution of necessities in kind on a certificate of work done.

No attempt to establish a systematic economy with elimination of private ownership on a small scale was ever a more complete failure. The peasantry refused to practise communal production, the town workmen proved totally incapable of carrying on industry; neither had their elementary needs satisfied. So far from adjusting production to consumption the system reduced it below the level of subsistence. Nor was the attempt to 'militarise' labour by enrolling all individuals in industrial battalions under

the most rigid discipline any more successful. After a three-and-a-half years' trial 1 to be given up. That was freely

ted by Lenin when he introduced

the 'new economic policy' (see page 4957) in 1921, by which capitalist economy was to a certain extent restored. Lenin called it State Capitalism.

Improvement followed at once in spite of the famine that year, and continued until the authorities became alarmed at the success of private enterprise, which threatened completely to falsify the theories on which their system had been built and to destroy it. The result was a partial reversal of policy and repression of private trading, coupled with an attempt to improve public enterprise. This went on in 1924 with such disastrous effects that it had to be abandoned in 1925 and more favourable treatment of private enterprise again adopted. So the experiment has gone on, alternating between Marxian theory and economic necessity. Just so far as capitalism has been re-introduced, improvement has taken place; when it is allowed to function the situation is eased; when it is again repressed, decline at once sets in. This makes the experiment a far more instructive object lesson in socialism as an economic system than if it had been wholly abandoned.

The story is not finished yet, but so far as it has gone the lesson is unmistakable. Nor has it been ignored. Every excuse is offered for the failure of the Russian experiment, but no one denies that it occurred.

Failure of the Russian experiment

Socialists and even communists, who try to persuade the world that all is now well and Russia prosperous, say that they would avoid the mistakes that have been made. But how they would avoid them is not stated. The main criticism urged, at least by socialists, is that the great mistake was trying to establish socialism all at once; the process should be gradual. But this hardly meets the case; the causes of failure appear to be more fundamental. The Russians, who are as well versed in the theory of socialism as anyone else, have tried every expedient; but each effort makes it more clear that the root cause of failure lies in the principle of centralised public control to the exclusion of personal responsibility and initiative. If the assumptions on which the theory of socialism is built were at all

valid, the system could not have been such a complete failure, even though it was established too suddenly.

No such object lesson as the Russian experiment has been furnished by other countries, because no other has ventured to put theory to the test of practice; but some have been faced by the problem of doing so, and their experience is hardly less instructive. The most important of these is Germany, where the revolution of November, 1918, placed the reins of power completely in the hands of the Social Democrats, who formed the first provisional government by general consent and without opposition. They were expected by their supporters to fulfil their promises and realize the theories of socialism at once, or at least to make a beginning; but they found themselves totally unprepared to deal with the problem, having all their lives confined themselves to the purely negative teaching of Marx, and having paid no attention to the constructive side of socialism.

Being Germans they were not minded to follow the Russian example; for Germans do not plunge into action without thorough consideration and preparation. And, moreover, they did not approve of the

Caution in Germany which had split the socialist movement in Russia, and was already splitting it in Germany.

They required time for deliberation, and therefore appointed a commission of inquiry into 'socialisation,' which had been accepted as the aim of their policy while still remote, but had never been examined at close quarters with a view to realization. The whole situation was changed by the sudden transition from political agitation to the responsibility of action, and they dared not risk a false step.

The commission, which consisted of leading socialists and sympathetic economists, reported on December 10 to the clamorous democracy that no immediate steps could be taken and the existing system must be retained for the present, in order to restore production and trade; but they recommended a gradual and cautious advance towards socialisation, beginning with coal and iron as the industries most 'ripe' for conversion. Two

months later a formal report on socialisation of the coal mines was presented. It unanimously condemned both the private and the state mines, the former on account of their monopolistic character, the latter on account of their inefficiency; and it recommended state ownership of the whole industry, but under the control of a joint statutory body, in which management, miners, consumers and the state would be equally represented. On the treatment of private capital in the mines the commissioners were divided; the majority were for its total exclusion; the minority held, on practical grounds, that this could not be done at once.

A general socialisation act of a purely permissive character was passed by the National Assembly in March, 1919, and by virtue of it a coal mines

act, providing for the control of the private mines by a joint National Coal

Council, but not for their appropriation. This was disappointing to the nationalisers, and in 1920 the commission of inquiry was reconstituted. Various schemes were laid before it and discussed, but agreement was not reached and eventually nationalisation was abandoned. The only result of all the agitation about socialising the private coal mines was their consolidation and the setting up of a joint council of control, representing owners, miners and consumers. The potash industry was similarly treated.

The idea, which has now become widespread, is that the consumers' representatives will exercise control over prices, but experience has shown that they are powerless against the owners and miners, and that the latter simply follow the lead of the former in this respect. The system of joint control of monopolistic large-scale industry, which is the principal feature of the new economic order, has been accompanied by another change, namely the commercialisation of publicly owned undertakings by their conversion from state departments into autonomous companies, for the avoidance of bureaucracy. This has been done on an extensive scale in Germany in regard to coal mines, railways, war factories and also municipal undertakings. The movement has become

general, and it appears to give satisfaction, but it is not in any sense an instalment of socialism. In sum the experience of Germany corroborates that of Russia so far as to prove that the realization of socialism presents unforeseen economic difficulties and demands a much more thorough investigation before it can be undertaken with any assurance of success.

The experience of Austria teaches the same lesson. The circumstances were different in many respects, and the Social Democratic party never secured such complete power as in

Object Lesson of Austria Germany immediately after the revolution; but they were sufficiently dominant to inaugurate their own policy, and they held power longer than their colleagues in Germany, who lost ground and political influence under the new democratic constitution. In Vienna, indeed, which is a self-governing city state, the socialists have enjoyed complete power ever since the revolution, but their administration has made no attempt to convert private into public ownership.

In the republic of Austria the Social Democrats dominated the coalition government in 1919, and Dr. Otto Bauer, who also conducted an inquiry into socialisation, tentatively introduced a system of economy which he hoped would develop into a form of socialism. He took some of the war factories belonging to the state and instituted a joint organization in which the state, the co-operative societies, the works councils and trade unions took part. A number of undertakings were organized on these lines, but with much variety in detail, and for a time some, at least, did well. But they did not develop as he expected and later were either dropped or gradually reverted to the ordinary commercial type. This is in keeping with the tendency shown by other economic enterprises planned in accordance with theory, such as productive industries, run by workmen on a real co-operative basis. If they succeed and carry on, they gradually change their character and become indistinguishable from ordinary concerns. Otherwise they fail and come to an end.

The lesson is the same as that taught by the Russian experience, and it is that

the prevailing system of economy is not an arbitrary creation but a natural growth corresponding to the actual conditions and forces of life—in short, the survival of the fittest.

In other countries also, in which there has been no revolution as there has been in Russia, Germany and Austria, political socialism has advanced since the war so far as to assume the responsibility of government and consequently to face the practical problem of realizing economic socialism. That is the case with Sweden and Denmark, particularly the former, which was the first European country to instal a socialist administration through the ordinary political procedure. The Social Democratic party had already, in 1914, become the largest party in the Lower Chamber of the Riksdag, and in 1917 they joined the coalition government; in 1920, having increased their strength, they formed a government of their own. It did not last long; but they returned to office in 1921, held it for eighteen months, and again for nineteen months in 1924-26, when they were the largest party in both Chambers.

They have therefore had considerable experience of administrative responsibility and ample opportunity to attempt some measure of socialism, but they have attempted none. **Sweden and Denmark** In 1920 Branting, leader of the party and prime minister, followed the German example and set up a commission of inquiry into socialisation. It was scientific or technical rather than political, and has since carried on its researches continuously and published volumes of reports at intervals. The principal object was to discover the best form of industrial organization, and reports were issued dealing with different industries. The first dealt with railways, and it is the one that has come nearest to a practical outcome, though not yet carried out. In Sweden the railways are partly owned and operated by the state, partly by private companies; the report recommended the reorganization of the state railways on commercial lines, with representation of all interests in the controlling body. In June, 1926, the socialist government was defeated and resigned. No proposal has

been made for socialising the privately owned railways or other enterprises.

In Denmark the socialist party assumed office in 1924, after a general election which made them the largest party in the Folketing. It has attempted no measure of socialism. In Great Britain the Labour party took office in January, 1924, though not the largest party, and retained it until November, but attempted no measure of socialism. In Belgium the Labour party drew level with the Centre at the general election and formed a coalition ministry with them in equal proportions. In 1926, 3,000 miles of state railways were commercialised by transference from state administration to a 'national company,' an autonomous composite body formed on the principle of joint representation of all interests on the controlling authority.

There remains Australia, which is pre-eminently the land of state enterprises. They have been dispassionately reviewed by Professor J. B. Brigden, of the University of Tasmania, in a special article written for the Inter-

State Enterprise in Australia (July, 1927). He says that the growth of state

business enterprise in Australia is not due to 'any deliberate intention to develop some kind of socialism, for although this idea has been vaguely influential with the Labour party, by far the greater part has been promoted by avowed anti-socialists, who sought nothing more than to provide facilities for the expansion of private enterprise.' He attributes it to the habit of relying upon the government, to the ease with which governments can be moved to act, the still greater ease with which they can raise capital in Great Britain, and the temptations of a new country to develop its resources at the cost of posterity.

He divides the state enterprises into seven classes, of which the 'intentionally socialistic' ones form the last class, and he says of them that they 'have been rare in fact, although much has been advocated and much alleged.' Queensland is 'the only state that has had a consistent policy avowedly directed towards socialism.' The Labour party there secured a majority in 1915 and has been

in power ever since. Political socialism has therefore had a longer trial in Queensland than anywhere else. The story of the twelve years, Professor Brigden says, is 'largely one of disillusionment so far as the original ambitions are concerned.'

Yet those ambitions represent a very modified form of socialism. In 1918 the premier, Ryan, declared that 'the object has not been to secure monopoly or to squeeze Experiments out of business legitimate in Queensland private traders, but to protect the public by competing with the latter on fair and efficient lines.' A state trading department was set up, to manage a number of experiments, including cattle stations, butchers' shops, produce agencies, fish supply, fruit canneries, hotels and railway catering. Of these, the trading concerns— butchers' shops, produce agencies, hotels and catering—have been successful, which means have made profits; but the profits have been overwhelmed by the heavier losses made in the other (productive) undertakings, particularly the cattle stations—'an industry that is peculiarly dependent upon individual initiative and resource.' The fish supply was given up; and it is to be observed that a state fish-trawling enterprise, started in 1915 in New South Wales, was sold in 1923 with a total loss of £317,850. The failure was attributed to incompetent management. Other experiments in Queensland that have resulted in continuous losses are coal mines, iron and steel works (abandoned), oil bore (abandoned), ore batteries, smelters, ore-treatment works.

Next to Queensland, New South Wales has been most active in state enterprises. An industrial undertakings act was passed in 1912, for the administration of trading concerns. Some have been successful, others not. The following have been abandoned with accumulated losses: fish trawlers, timber yards, saw mills, power station. The successful concerns are all connected with the building industry. They are brickworks, metal quarries and construction, pipe and concrete works. There is also a large land settlement scheme, which does not pay its way; but the conditions are exceptional. As in

Queensland, it is the trading concerns that succeed. But the Commonwealth line of steamships, started in 1916 and successful during the war, made such heavy losses afterwards that in 1923 the capital was written down from £12,766,588 to £4,718,500 and the management transferred to a board. In 1925 the government decided, on the advice of the board, to dispose of the fleet, the total loss then amounting to over £4,000,000.

Altogether the Australian experience is very chequered. Advocates of socialism claim 'indirect benefits,' but that implies a complete change of objective and of principle—public enterprise for the regulation, not the displacement, of private.

The position in 1928 was this. The after-war advance of political socialism has in several countries brought the movement face to face with the problem of translating theory into practice and establishing economic socialism. In

Acid Test of Responsibility Russia the attempt was boldly and confidently made to banish capitalism and install full socialism, with such disastrous results as to compel a reluctant return to some degree of capitalism. The aim was not abandoned, only postponed; but subsequent experience has furnished a further proof of its impracticability within any predictable period of time. Elsewhere in Europe the difficulties were found to be so great that no attempt has been made to solve the problem, though many solutions have been proposed.

This experience has reacted on the theory of socialism, which has everywhere undergone revision. It is perceived that the old simple conception of private ownership of capital, etc., replaced by public ownership—vaguely embodied in the term 'nationalisation' or 'socialisation'—does not correspond with the realities of economic life and is quite inadequate. The most thoughtful socialists recognize that the practical problem has never been understood or even seriously studied. The result is that the whole movement is in a state of confusion and uncertainty on the theoretical side, split

in two on the political side and paralysed for practical purposes. Only the more fanatical or the more ignorant cling to the old formulas and expect to see 'socialism in our time.' The more fanatical are the communists, who follow the lead of Russia and adopt the Bolshevik creed.

Hence the great split in the political movement, signalised by the establishment of two rival Internationals, the Red or Communist International, founded in 1919 with its seat in Moscow and run by the Bolshevik **The two rival Internationals** and Socialist International, which is the old Second International revived at Hamburg in 1923. The latter represents the more intellectual and rational elements in the movement, with the German and German-Austrian Social Democrats in the foreground. But their standpoint has been shifted. The prevalent views on both the old and the new economic order—that is capitalism and socialism—have changed, and the change is reflected in the general revision of programmes. But nothing is settled; there is no agreement; the whole thing is in a state of flux.

For practical purposes, however, socialism, apart from communism, has come to mean social reform of a radical type, and particularly a policy of equalising material conditions by financial measures within the framework of the capitalist system, which is itself undergoing continuous change. Communism has come to mean world revolution, with no definite economic aim and no economic prospect except universal ruin. This is the chief object of Bolshevism, and the instrument is the Communist International with branches in every country. Its influence fluctuates with circumstances, of which the most important is the amount of money spent in propaganda. It has not the remotest chance of success, but its persistence in abusing hospitality and exciting disturbances is exhausting the patience of one country after another, not of governments only, but still more of the people, including the trade unions.

THE ECONOMICS OF CAPITALISM

How the System works on which the modern
Social and Industrial State is built up

By J. A. HOBSON

Author of *The Evolution of Modern Capitalism*, *Incentives in the New Industrial Order*, etc.

LIKE many other 'isms,' capitalism eludes all attempts at close definition. But it is for common convenience taken to mean the modern business system, conducted by the owners of the capital employed, or their representatives, for the sake of private profit. This description, however, does not get us out of the wood; for both 'capital' and 'profit' are shifty terms. Capital has two faces, according as it is regarded from its monetary or its material aspect.

For all book-keeping purposes capital is reckoned in terms of money, the capital of a company in shares. The 'saving' which forms capital is the saving of money. In cities a 'capitalist' means a man who possesses, or can procure, money, or credit, for purposes of investment or speculation. But this money is only an index of what we may call the 'real' capital in the business system. That consists of all sorts of marketable matter embodying labour, tools and machinery, buildings and 'improvements,' fuel and power, raw materials and manufactured goods in various processes towards completion, together with stocks of goods in the hands of merchants before they pass by purchase to consumers, thus ceasing to be capital.

It will be observed that land, with its mineral and other resources, so far as it does not represent 'improvements,' is not here classed as capital. But monetary investments and estimates of the capital in a concern include any land values which may have been acquired, and some economists have proposed to merge land in capital, instead of treating it as a separate factor in production. But on the whole it is more convenient to treat land separately, and confine capital to the embodiments of human labour. So also

with the proposal to include in capital the acquired strength, skill, knowledge of workers, what is sometimes called 'human capital'; it is too wide a departure from the ordinary way of looking at the business system to be accepted.

But, before proceeding further, certain popular conceptions of capitalism and capitalist deserve attention. What of the 'conflict between capital and labour,' and the capitalist as he figures in the imagination of the class-conscious worker? Though there is sometimes a real conflict of interests between those who seek profit from investing their capital in a business and the wage earners in that business, the immediate conflict of the workers is always with the directors and the management. Under ordinary conditions of free competition it could not rightly be said that any conflict of interests existed between worker and capitalist, whether the latter were owner, manager or shareholder. For under such conditions profits or dividends would be kept at a subsistence level, as well as wages, by competition in the market. Conflict could only arise when competition was restricted, or when a general boom in trade, or some special advantages in methods of production or in markets, put a business, or a whole industry, in a position to earn high profits. Labour would then seek to divert some of this surplus profit into higher wages. In a word, there is harmony between capital and labour when competitive conditions keep prices and dividends low, conflict where some 'surplus' exists.

The worker, not following these conditions of the market, and visualising a 'bloated capitalist' driving to his office

in his Rolls Royce, often falsely dramatises the real issue. Most 'capitalists' are not rich men, but small share or debenture holders in businesses where they have virtually no control, and the dividends they get (unless they have been lucky in their purchase) are usually 'the market rate.' There are large unearned fortunes made under the capitalist system, but they are mostly taken by specially favoured groups of financiers and entrepreneurs, not by the rank and file of the owners of industrial capital, except in cases of inherited wealth.

In any community that did not deliberately seek the simpler life of medieval poverty, whether socialist, communist or any other, capital in large quantities would be still required, and upon its adequate provision the progress of industry and the enlarged comforts of the people would depend. In that sense the permanence of capitalism is a necessity of progress, however the control of capital may be shifted. A socialistic nation would require quite as much capital as a nation working under private enterprise—or even more, if capital were used wastefully.

Power-driven machinery has been the chief instrument of modern capitalism. Amid a multitude of inventions and variations, modern machinery consists of three parts, which, though mechanically connected, are essentially distinct: the motor mechanism, the transmitting mechanism and the tool or working machine. Increased automatism has constantly been added in the modern factory or works, pushing a larger proportion of the employees on to the care and control of machinery, a smaller proportion to mere machine feeding. Thus, though in its earlier stages modern capitalism narrowed and subdivided labour into small monotonous routine, its later stages often call for some skill, responsibility and judgement in the performance of operations which, by reason of some irregularity in material or process, require the human intelligence to intervene.

Modern capitalism, no doubt, means for the ordinary worker less interesting, less varied, and less skilful labour than prevailed in an era of agriculture and

handicraft; but for all that its net effect, at any rate in its later development, is humanising rather than the reverse. For, on the whole, the large town life is more interesting, and literally 'civilizing,' than country life pursued under the old or even modern conditions, and the town is a product of capitalism. Society, education, recreation, with a higher standard of consumption and some shortening of the work day, are compensations for the routine workers and machine tenders. Moreover, as statistics show, the volume of employment in purely mechanical processes is not increasing but diminishing in the advanced industries, and an increasing proportion of the occupied population finds employment in transport and distributive work where there is some variety and some relief from mechanical routine.

The second distinctive feature of capitalism is the expansion of markets which large-scale production and improved facilities of transport brought about. **Expansion of Markets** Before the days of modern capitalism most articles of food, clothing, furniture and other necessaries and conveniences of life were made at home, or within a few miles of home; only a few raw materials, such as cotton and metals, together with some foreign luxuries like tea, silk and tobacco, came from distant parts. Now home production, save in remote rural places, has almost disappeared, and every townsman, or villager, supplies his wants from distant countries whose very name he often does not know.

Two other necessary features of the new industrial order need mention. At the beginning of the eighteenth century joint-stock capital was very narrowly confined in its operations. The Funded Debt, the Bank of England and a few chartered companies for foreign trade, such as the East India and Hudson's Bay companies, were almost the only reliable investments on a large scale open to the saving public. Joint-stock enterprise in manufacture was virtually non-existent in the mid-century, one of the earliest instances being a company formed in 1764 with a capital of £100,000, for manufacturing fine cambries. Adam Smith

indicates the limits of joint-stock enterprise in the later eighteenth century in the following passage :

The only trades which it seems possible for a joint-stock company to carry on successfully, without an exclusive privilege, are those of which all the operations are capable of being reduced to what is called a routine, or to such a uniformity of method as admits of little or no variation. Of this kind is, first, the banking trade ; secondly, the trade of insurance from fire and from sea-risks and capture in time of war ; thirdly, the trade of making and maintaining a navigable cut or canal ; and fourthly, the similar trade of bringing water for the supply of a great city.

These limits were slow in breaking down before the demands of co-operative capital

for manufacture and commerce. In the first half of the nineteenth century the law of unlimited liability, by which a shareholder became responsible for the whole debts or losses of the company, restrained the more cautious investors. Not until limited liability was established in 1855 was the full stream of capitalistic finance free to do its fertilising work, first in railroads, shipping, mining, banking and insurance, next in the supply of municipally or privately owned local services, and finally in the rapid growth of industrial and trading companies. The development of banking, investment and insurance companies is important, however, not merely as an example of joint-stock enterprise, but as the necessary financial instrument of the new capitalism gathering from ever wider areas and strata of population investable savings, and distributing them in accordance with the needs of the various industries and countries as indicated by their comparative values in stock-exchange securities.

These investments differ also in the conditions attached to them. The familiar distinction of ordinary and preference shares and debentures expresses different degrees of risk and of control, while bank credits play in many instances an important part in assisting joint-stock businesses with short-time loans for running expenses. In some countries, especially in Germany, banks have played

a much more important part in the initiation of and participation in industrial and commercial enterprises. In Great Britain banks have played a smaller part, occasionally in underwriting issues of stocks, and normally in making advances for specified periods.

The joint-stock business, the true unit of capitalism, thus constituted, is in its formal government a limited democracy ; it is controlled by the vote of shareholders at a general meeting, each share carrying a vote. Virtually, however, the government is vested in the board of directors, the personnel of which was in most cases largely self-appointed at the formation of the company, and can only be displaced with extreme difficulty as a result of conspicuous incompetence. In a large proportion of cases a managing director has autocratic power over the ordinary conduct of the business. The ordinary body of shareholders has neither the knowledge nor the desire to take any real part in the running of the business, or businesses, in which they have put their savings, while in many cases the ownership of shares is merely temporary and for speculative purposes. The speculation of stock exchanges has introduced a fluidity in ownership which greatly enhances the power of the few directors and large owners whose interests are permanent.

The transformation of private businesses into companies has become very rapid in Great Britain and the United States. It serves several **Joint-stock** **enterprise** conveniences. If financial assistance is needed from banks or other outside sources, share capital is a better security ; and for purposes of inheritance and taxation the company form is more convenient. The number of registered companies in Great Britain trebled itself in the first quarter of the twentieth century. The only great branch of production lying almost entirely in individual hands is agriculture. Mining, transport by land and sea, electric power, the staple manufactures, finance, wholesale distribution and an ever growing proportion of retail shopkeeping are joint-stock enterprises. Small employers and individual workers are, however, still found in large numbers in the building and

furniture trades, in some branches of the clothing trade and in subsidiary metal trades, as well as in certain luxury and personal services and in repair work.

In America census figures show that in manufactures the proportion of the product turned out by 'corporations' amounts to some 90 per cent. of the total, while the proportion of wage earners thus employed stands at about the same figure. In other industrialised countries, especially in Germany, Japan, France, North Italy, Holland and Switzerland, the same tidal movement towards joint-stock capitalism is clearly discernible.

A vast network of financial institutions, banks, investment, trust and insurance

companies gathers in the savings of individuals throughout the civilized world and supplies the

fresh capital continually needed to start new trades, enlarge or improve old trades, develop backward areas of the earth and equip them with docks, harbours, railroads and the fabric of civilized cities. As modern science speeds up invention in the technique of industry, there is a constant demand for new adventuresome capital, and rapid fortunes often await those who are first in the field. Huge tracts of the world, in particular Russia, China and South America, are ripe for capitalist development upon a scale that would absorb all the spare resources of the more developed West for the next generation. Certain essential raw materials, such as oil, rubber, copper, cotton, are in such urgently growing demand that the whole earth is being ransacked to find increased supplies, and to this task great sums of new capital are consecrated.

This growing mobility of capital has had important reactions on the structure of businesses and industries. When most businesses were in the hands of individuals who worked them with their own resources, or with some occasional bank aid, their size and quality of equipment depended upon this limited finance, and one found in the same trade and the same locality a great variety of businesses of different magnitudes, some employing up-to-date machinery, others clinging to

obsolete methods, because they could not afford to change. Under the new conditions, in most staple trades, the capital and labour tend to flow into business units of a more or less uniform size and technical equipment.

Thus, it is possible to talk of 'the representative business,' and though there will be some businesses varying from this type (perhaps working some special patent or supplying some particular market), most of the capital employed in the trade will take this uniform shape. Among the spinning and weaving mills of Lancashire there is a representative mill, in respect of numbers of spindles and looms. This type is larger to-day than in 1900, but definitely, not indefinitely, larger. In each branch of work there is a size or type which is most favourable and economical in working. What applies to textile mills will apply more or less to other trades, in proportion as they are standardised in methods of production and outside capital is freely available. It is more difficult to find a fixed type in engineering, and businesses which supply the changing tastes of consumers, or where new methods of working are in process of discovery, cannot easily be brought under this rule.

But it is right to realize that most manufacturing plants have some limit of size and capital expenditure, beyond which, or below which, it

is not economical to work. **Size limit of Business Units**
The rough idea that a large business can be conducted more profitably than a small one, because the overhead expenses are reduced per unit of the output, is only true up to a point, and that point stands differently in every sort of trade. This has an important bearing upon the tendency towards 'concentration of capital.' If it were generally true that the bigger a business, the lower are its costs of production, it would seem to follow that bigger businesses would drive smaller ones out of the field and that every industry would gravitate towards a monster trust which would wield the power of a monopoly.

Since this is held to be the chief menace that capitalism presents to the world, it is worth while inquiring how much truth it

contains. The fact that in most trades there is a limit to the size of a productive plant, due partly to economy in distribution of power, partly to conditions of efficient management, does not settle the problem of the tendency towards monopoly. For, though it may not pay to put up a plant of more than a certain size, it may pay a company to own and work a large number of these representative plants, and so it might come to pass that a big concern could monopolise a trade by reason of its financial strength. A big concern, with large capital and greater facilities for obtaining more if required, is in a stronger position for meeting trade emergencies and fluctuations than a small one-mill concern, however well equipped for production. The big concern can often organize its purchases of materials and its market more advantageously; it can employ expert scientists and scrap its out-of-date machinery more easily. In a word, the financial is usually much larger than the technical limit of efficiency.

It will, however, generally be agreed that there is some limit even to this larger type of business. Certain wastes are engendered in a very big business, due chiefly to the human limitations of

Size limit of Monopolies the managing personnel. A single brain cannot function with full efficiency when the number and intricacy of the business issues are too great. How far does this consideration supply an adequate safeguard against monopoly? The loose way in which the term monopolist, like the term millionaire, is flung about to express the envy and distrust of small traders towards their more successful rivals does not relieve us from the task of ascertaining how far capitalism does run towards monopoly, and of inquiring what the dangers of monopoly are and how they can be met.

In his work, *Trusts in British Industry*, Morgan Rees distinguishes four monopolies—natural, legal, social and artificial:

Thus a natural monopoly would be one in some natural product such as oil or salt; a legal one that granted by law, such as a patent for a machine, or process, or a copyright; a social monopoly would be of the kind that provides public services such as the post office or a water company; while,

lastly, artificial monopolies are those which are due to industrial organization and financial power

The economic problem of capitalism is chiefly concerned with the last order. It is, however, right to add that few monopolies are purely 'artificial'. Most of the strong American trusts, for example, are rooted partly in strong finance and organization, partly also in preferential access to raw materials or to trans-

Trusts & Monopolies in America

port facilities or to tariff protection. The Standard Oil, the United States Steel Corporation, the Sugar Trust are cases of this mixed origin. Mere size of plant or of capital seldom, if ever, suffices to explain the origin and success of a trust. In America access to the best available raw materials, coupled with some 'pull' upon the railroads, enabled the earlier trust makers to grow until they obtained so large a share of the market that other smaller independent businesses found it safer to follow their lead in price fixing, instead of attempting to compete.

The trust, an American invention, was a device whereby hitherto competing companies agreed to accept from a body of 'trustees' certificates in lieu of shares in their several concerns, and to receive dividends from a common pool representing the united profits of all the businesses. This device was declared illegal, but the name 'trust' stuck to the various sorts of combine, 'holding company' or other method of substituting combination for competition. Until the close of the nineteenth century successful trusts were very few, but since that time a very large proportion of manufacturing, mining, transport and communications in America has been brought under some strong single financial control.

But the term trust is still loosely used, and though in most cases there is a strong price-fixing power and some control of markets, in very few instances is there anything like complete monopoly. Trusts are sometimes classified as horizontal and vertical, the former consisting of combinations of businesses performing the same productive operation, for instance shoe-machinery making; the latter linking

up the various processes by which raw materials, for instance iron and steel, are converted into finished goods, tools, machines, furniture, etc. There is nothing contradictory in the processes, but convenience sometimes decides for one, sometimes for the other, and the modern tendency favours the simpler process of combining firms specialised to a particular line of work, though in some trades, such as metals and machine making, there remains a disposition to control some good supply of raw materials or power.

Besides the American trust, the German 'cartel' has sprung into quick prominence.

Long before the war many branches of German production had formed themselves into selling syndicates for fixing prices and common marketing arrangements, both domestic and foreign. In certain scientific products, especially synthetic dyes, chemicals, photographic apparatus and scientific instruments, this trade organization became so efficient as to secure something approaching a world monopoly. Since the war the cartel system has been both extended and intensified. Combination has for practical purposes superseded competition in most staple industries, and the five comprehensive trusts of coal, electricity, potash, textiles and steel dominate the industries of the country.

In Great Britain the art of combination has pursued no single path. The Committee on Trusts, which reported in 1917, described various methods by which the members of a trade got together to regulate prices and maintain 'a reasonable profit.' Some of them were loose and informal, 'gentlemen's alliances,' trade associations for stopping price cutting and preventing over-production. But many of these associations had fixed meetings and committees for the regulation of their local or national trades. Some of them fixed output, leaving prices to take care of themselves; others fixed prices only. But the tendency even before the war was towards a form of combination that regulated both output and prices and established selling agencies, while a more complete consolidation, approaching to the American trust, was formed in certain

textile, metal, chemical and builders' furnishing trades.

The war, of course, did much to facilitate and accelerate this movement. Advisory committees and trade associations were organized to control prices and regulate production. War finance made it impossible to get capital for new enterprises, and the large profits made by many firms were put into an extension of their works and an acquisition of weaker competing businesses. Conferences of manufacturers led to concerted plans, and the after-result was a series of amalgamations.

The same movements towards combination and association are plainly visible in the distributing trades. Here the stores and the multiple shop are taking an increasing share of retail business, while the chemist, stationer, oilman, draper, china store display an increasingly miscellaneous lot of wares. Only in the higher grades of quality and fashion does the nicely differentiated shopman still survive. Shops in an ever increasing number are tied to some manufacturing firm, as in the boot and shoe trade, or are virtually the agents of some wholesale manufacturer or furnisher, who supplies the packet goods they sell and regulates the prices. Organizations of food vendors are rife in all towns and are stated to restrict supplies (sometimes by destroying surpluses) in order to maintain high prices, especially in the perishable commodities of fish, fruit and vegetables.

Much of this concentration of business is obviously waste-saving, and when sufficient competition survives is serviceable to consumers. But the temptation to maintain high profits and prices is irresistible when the vendors of any particular commodity can easily get together, and the passing of a large proportion of a local trade into the hands of a few big firms tends towards more or less regular price arrangements as the sole alternative to cut-throat competition.

As might have been anticipated, banking and insurance are two economic activities which have lent themselves to a high degree of concentration. The grip of bankers and financiers over the credit

machine, and thus over industry in every advanced country, is growing stronger. In 1890 the number of joint-stock banks in England and Wales was 104; in 1900 it had fallen to 77; in 1914 to 38; in 1924 to 18, and, of these, five held 84 per cent. of the aggregate deposit and current accounts. In the insurance world, while competition for business is kept up, the terms on which the business shall be done, and the distribution and pooling of risks, impose a measure of monopoly greater than that prevailing in any other market.

But the concentration of banking and insurance has a much farther-reaching influence than the similar structural change in any other department of economic life. For money and credit are the life blood of the whole system. It is on this account that, not in socialistic circles only, but among sober-minded, practical business men, a grave feeling of uneasiness attaches to the growth of a 'money power' which, through the ramifications of investments and the manipulation of credit, wields a power of life and death over whole industries and provinces of the earth.

Not once, but in a score of instances, bankers have forcibly intervened, for good or evil, in matters of high political as well as economic moment. The collapse and recovery of national monetary systems,

the supply or refusal of necessary capital to broken countries, the liquidation

of international indebtedness, the general work of restoration after the war have turned mainly on the action of a few great financial magnates in London, Paris, Berlin and New York. Though the British banks have never taken the directly active part in promoting and financing industrial enterprises which Continental banks have done, their control of credit gives them an immense power over the conduct of business.

It is, therefore, not unnatural that in periods of trade depression many critics should find the fundamental defect of capitalism in the 'money power.' We have, it is contended, no proper security in a monetary system conducted by private financiers for profit that the volume of purchasing power shall expand or contract

in accordance with the needs of trade and the consuming public. Bankers' policy, it is claimed, is not directed by a clear sense of the monetary needs of the community. Especially are they charged with curbing and contracting the activity and productivity of industry in order to maintain high prices and high profits in the businesses which they control or finance. This criticism receives a plausible support from evidence which indicates that, while the general industry of Great Britain suffered from depression and unemployment in the post-war years, the banking business thrived.

Many authoritative economists have associated themselves with some aspect of this attack upon

financial capitalism, **Attacks on**
urging that the supply **Financial Capitalism**
of bank money and

the direction of the flow of capital shall be brought under public supervision and control. If capitalism were a purely national concern, this demand for the control of money might appear a tolerably simple matter, having regard to the concentration of the banking business in so few hands. But capitalism and the investment market are world phenomena. Countless thousands of citizens in Great Britain and America are part-owners of lands, railroads, minerals, factories, municipal plants and public revenues in all parts of the world.

In 1914 the total amount of British capital invested abroad was estimated at about £4,000,000,000, French foreign capital at £1,800,000,000, German at £1,200,000,000. The financing of the Great War, however, materially affected these sums, reducing the British sum by perhaps £1,000,000,000 and almost wiping out the French and German investments. British losses have already been made good to a large extent, though annual receipts from investments abroad are less than before the war. Germany, of course, is becoming a debtor nation on a constantly increasing scale, since her reparation payments are effected, not out of her balance in foreign trade, but by loans and advances from abroad, principally from America. Similarly, France finds great difficulty in paying even the reduced

interest on her foreign debts out of her own resources.

The United States stands out as the greatest representative of triumphant capitalism. During and since the war she has not only paid off the bulk of her indebtedness to Europe in respect of the large sums advanced for the making of her railways and the early development of her manufactures, but she has assumed the first place as a foreign investor. Most of the money for the re-establishment of central Europe was found in America, whose high tariff policy compels her to re-invest in Europe, or elsewhere, the large sums due to her for war loans, and any surpluses from her large and growing export trade. Thus the United States' boasted political isolation is countered by enlarged economic stakes in Europe, South America and the Far East.

But international capitalism is taking a more formal shape in the growing co-operation of capitalist groups in the advanced industrial countries. Banking and finance for a very long time past have had a strongly international character. Money being the most fluid form of capital, it has been convenient for the great financiers to place branches and agencies in foreign countries, and to co-operate with foreign financial groups in large undertakings. A striking example has been the Chinese Consortium, by which banking groups in Europe and America have agreed to pursue a common policy in loans to China, acting with the consent and aid of their national governments.

But the biggest new step in international capitalism is the extension of the cartel. For some time before the war agreements were made in branches of the metal trades between groups of manufacturers in different countries, and a few trusts, ranging from explosives to cotton thread, were successfully established. The Committee on Commercial and Industrial Policy after the war thus reports the pre-war situation :

British combinations and firms have in a number of instances been parties to international agreements for the delimitation of markets and the regulation of prices. A well-known case is that of the International

Rail Syndicate, and other examples relate to such diverse commodities as wire-netting, aniline oil and sulphur black and some other chemical products, glass bottles, tobacco and certain non-ferrous metals

After the temporary interruption of the war this international capitalism is taking clearer shape. The deliberate policy pursued in Germany, with governmental backing, for the organization of all leading industries into national cartels has had considerable effect as an example to other countries, called upon either to fight these cartels in the world market or to come to terms with them by forming similar national organizations, and linking up with one another. The revival of the steel cartel on the Continent is the first-fruit of the movement, and the coal situation is for many a lesson in the necessity of national co-ordination, in order to come to some agreement which shall enable the industry in the different producing countries to mobilise its output and regulate its prices. Cut-throat competition, violently fluctuating prices, unreliable employment are relics of economic barbarism which capitalism must eliminate if it is to survive.

The attack upon capitalism, as business organized for private profit, has taken several shapes. Whole-hog socialism is discussed in Chapter 185, but wherever the experiment has been seriously undertaken it has hitherto proved a failure.

Attempts to subvert Capitalism

Indeed, the general tendency throughout Europe is in the direction of more public regulation, but the limitation of publicly conducted enterprises to a few fundamental industries and other services, either of national or local extent. On the other hand, the Consumers' Co-operative Movement, with its organization of wholesale and retail trade, supplemented by a limited amount of co-operative production, has bitten sharply into capitalism at certain points, controlling a large and growing volume of business, the profits of which are returned to the consumers. In Denmark, Holland, Switzerland, Ireland and parts of Russia much agriculture has taken on a co-operative shape, especially for purchase of materials and machinery and for marketing.

Enthusiastic co-operators have sometimes envisaged co-operation as replacing capitalism over the general body of industrial operations. But there is little solid support for such a vision. Producers' co-operation has taken but shallow root in Great Britain, or any great industrial country. In few cases do workers on a farm, in a factory or mine or in any other capitalist business seem able or willing to save enough to buy any substantial holding in the business, or to launch out for themselves in a new enterprise. Their earnings as a rule leave little margin out of which the considerable capital needed to ensure success can be provided, and these small savings are generally needed for acute family emergencies. Moreover, the wage-earning life seldom gives a sufficient insight into the conduct of a successful modern business to fit the manual worker for effective participation in the management.

Others seek to remove the barriers between the capitalist and the wage earner by schemes of profit sharing and co-partnership, which are intended to enlist the interests of the workers in the high productivity and the monetary success of the business. It is, however, doubtful whether either of these methods is suitable for general application.

Scheme of Profit Sharing Profit sharing has been successful in certain monopolistic industries, such as gasworks, and in special cases where the personal enthusiasm and generosity of the employers have been inspiring elements. But recurrent periods of bad trade, in which there was no 'profit' to divide, have proved fatal to many experiments, and the suspicion of trade unions at attempts to break the 'solidarity of labour' is a deterrent influence. Co-partnership, if it is to harmonise the interests of capital and labour, implies that large sections of the employees become shareholders to such an extent that they can influence policy. Bonus shares not endowed with voting power do not fulfil this test, and there is very little opportunity for British workers to effect enough savings to become substantial ordinary shareholders in the business where they work.

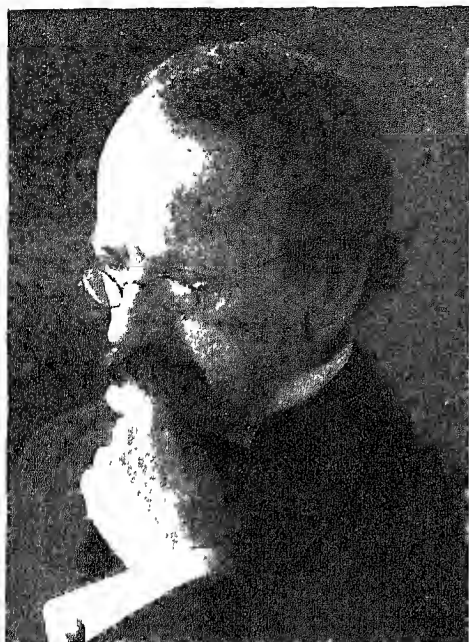
In America, where wages and possible savings are much higher, successful attempts have been made to induce employees to invest in the telephone, telegraph and other quasi-public co-operations, and the steel trust and other large businesses advertise the wide distribution of their shares among their employees. But there is no general disposition of workers to invest their savings in this way, and such savings as they make go largely into houses or pass through labour banks, insurance or investment companies into the general body of invested capital. If the cleavage between the owning and the working classes is to disappear by any wide and considerable diffusion of property among the workers, the possible margin for saving of wages must be a good deal larger than it is now in any European country.

In Britain and throughout Europe capitalism seems likely in the near future to undergo considerable

modifications. State and **Municipal and municipal ownership will State Ownership** continue to gain ground

in such fundamental industries as transport, mining, electric power, banking and insurance, while in the operation of these public industries central bureaucracy may to some considerable extent be replaced by local managing bodies upon which labour will be represented. If, as is likely, the improved organization of big business in general passes into the form of cartels or other combinations, some effective public supervision and control, both in the interest of consumers and of other industries, must be devised, so as to prevent the price control exercised by these cartels being abused. In other industries, less developed in structure and competitive in character, private capitalism will continue to have a wide field for initiative and enterprise.

If, as some hold, the political state is congenitally unfit for performing the difficult and delicate work of this control, the world will have to reconcile itself to the control of economic life by big financial and industrial groups organizing production for profit, with such consideration for the interests of workers and the consuming public as humanity, fear or some dim sense of social service may evoke.



Sir Joseph John Thomson (left), born near Manchester in 1856, was educated at Cambridge, where he became a lecturer and professor. To his brilliant researches are due the epoch-making discovery of the electron and the present state of knowledge concerning matter. It is to Max Planck (right) that we mainly owe the quantum theory and investigations into the propagation of energy.



Modern conceptions of cosmogony and stellar physics have been largely achieved as a result of the investigations of Sir James Jeans (left), who was awarded the Royal Astronomical Society's Gold Medal in 1922. Arthur Stanley Eddington (right), appointed Plumian professor of astronomy at Cambridge in 1913, is celebrated as the enunciator of the so-called principle of indeterminacy which bears on the geometrical properties of space.

CONTRIBUTORS TO MODERN KNOWLEDGE OF THE MATERIAL UNIVERSE

Photos, E. O. Hoppé, Topical Press Agency and (bottom) Russell

THE NEW PHILOSOPHY OF SCIENCE

A Sketch of modern Progress in clarifying fundamental Problems of Physics with a Discussion of Relativity and Physical Symbolism

By HUGH ELLIOT

Author of *Modern Science and Materialism*, etc.

THE outstanding characteristic of the twentieth century has been the vast expansion of philosophical physics.

From the wide morasses of metaphysics a great extent of territory has been reclaimed and added to the province of physics. The result is that the philosophy of this century has become, more than ever before, associated with science. Independent systems of philosophy have arisen from time to time; the most notable is that of Bergson, which for a brief period even acquired popularity. Bergson's system professed to be founded on science, but it never succeeded in attracting the support of scientific workers. It was highly speculative and metaphysical and owed its success more to the literary and oratorical powers of the author than to any firm scientific foundation.

There has indeed been no room for transcendental philosophy of the old-fashioned kind. The discoveries of science have in two decades taught us more about the nature of the universe than we had learned in two millennia of metaphysical speculation. Those interested in the ultimate problems of the universe find more to satisfy them in the conclusions of modern science than they could ever find in philosophy; and, although 'ultimate' questions remain as heretofore unanswered and unanswerable, so much real progress has been made towards allaying curiosity that speculative metaphysics has gone entirely out of favour.

The progress made has been along several lines. First, much has been discovered concerning the nature of the universe, as disclosed by powerful telescopes, and the position of the Earth in the universe. Secondly, the constitution of matter has been explored, and conclu-

sions reached of profound philosophic import. Thirdly, there is the principle of relativity, which must rank up to date as the greatest philosophical discovery of the century. Problems of life and mind have undergone no corresponding advance. Of the true causes of evolution (see page 4529) we are still as ignorant as before. The nature of mind has not been further illuminated, though the relation of mind and body is better understood.

The extent and nature of the universe are subjects that have already been treated incidentally in Chapter I on the Birth of the World, so that only

a summary of the most significant facts need be given here. The ancient

Limitation of the stellar universe

question was whether the stars occupy a limited portion of space, or whether they continue ad infinitum, so that if there are no limits to space there is no limit either to the number of stars. This question has now received a very definite answer. It is found that the more deeply we probe into the remoter portions of space the scarcer do the stars become. This conclusion has no relation to the greater difficulty of seeing them, but represents the actual fact that the stars at very great distances thin out, until at still greater distances there are probably none left at all. The universe of stars thus represents an island poised in the midst of space. The island is conceived as being of the shape of a bun; that is to say, the stars range for much greater distances in one plane than they do in other directions. It is not possible to fix a definite boundary, for the stars thin out gradually; but they extend about five times as far in one plane as they do in directions at right angles to this plane.

The absolute distances are fabulously great. One way of stating distances is in terms of the time taken by light to traverse space. Light travels at about 186,000 miles a second; travelling at this velocity, the distance which it covers in one year is called a light-year. The most remote stars of our island universe are about 27,000 light-years away; in the direction of the shorter axis of the system, the most remote stars are about 5,400 light-years away.

If the stellar universe is limited, it follows that the number of stars must also be finite. The most powerful telescope in the world is at Mount Wilson in California (see page 58); and it is estimated that this telescope can detect about 1,000 million stars. Naturally there is a far greater number, too faint for detection, and it is believed that the total number is of the order of 30,000 million.

These stars all belong to one gigantic system or universe, the boundary of which is marked by the Milky Way, and which

is therefore called the
Nature of the Galactic System. This system is not merely a random collection of stars, but a connected whole, probably having a common origin. The stars are thickest near the middle, and most sparsely scattered near the edge; but even where they are packed closest they are still four or five light-years distant from each other. Their movements within the system also indicate a common origin, with a general tendency to rotation about the axis of the Galaxy. The age of the stars is considered to be of the order of from five to ten million million years.

The stellar universe does not comprise all the objects visible through large telescopes. At far greater distances than any yet dealt with other bodies are discernible of the most gigantic proportions. These objects, whose nature is investigated in Chapter I, are the spiral nebulae. Their mass is of the order of a thousand million suns; their volume is of the order of the Galactic System itself. The nearest of them is distant nearly a million light-years, and the farthest that can be seen about 140 million light-years. Within that range there are believed to lie about two million nebulae at more or less uniform distances

from each other. The Earth is but one of many planets, going round the Sun; the Sun is one of thirty thousand million stars, comprising the stellar universe; the stellar universe is one of two million other universes; and what there may be beyond is outside the range even of speculation.

Modern theory suggests that all the nebulae are of about the same age, and that they also may have had a common origin. That origin may have been an excessively attenuated gas spreading through the whole of space, as we know it; for calculations show that such a gas would break up into masses of about the sizes and distances apart actually found in the nebulae. The nebulae in their turn would break up into other masses of about the sizes and distances of the stars. The origin of the solar system, however, is conceived of somewhat differently, as set forth in pages 66-76 of Chapter I, where the 'tidal theory' is enunciated.

One circumstance of profound philosophic interest—also a cardinal conclusion of Chapter I—is that the whole process of stellar evolution involves the disintegration of matter. **Disintegration of matter**

The material substance of the universe is uniformly wasting. The processes which we witness cannot therefore have been going on for ever. They are but a phase, which must some time have had a beginning and will some time have an end. But of what are they a phase? If matter is perpetually vanishing out of existence, and if no contrary process has ever either been observed or imagined, how was it originally created? To that problem modern science gives not the slightest clue, nor should we be surprised thereby. Unimaginable as are the magnitudes and distances which we have described, they may be but a speck by comparison with some other order of existences, far beyond the range of our possible knowledge. And in this other order of existences there may occur the complement of the processes which we now witness. Man is usually surprised to find that his new discoveries do not explain everything. All that we can ascertain is the kind of process now occurring in our particular corner of space; and all we can infer is that in some other part

of space or in some other period of time other processes must be occurring, or have occurred, radically different from anything of which we have cognizance.

Increasing knowledge of the size and nature of the universe is not the only influence in determining the tendencies of modern thought. Researches into the ultimate constitution of matter have been so profound and fruitful of discovery that they have given a new direction and impetus to philosophy. Philosophy is being dragged in the wake of physics; and science has begun to incorporate new conceptions, which were formerly held to be the subject matter of metaphysics.

At the end of the nineteenth century the atomic theory (see page 4525) was established as a fact. Matter was shown

to consist of an inconceivable quantity of molecules; the molecules again were composed

of still smaller units, called atoms. Ninety-two kinds of atom, and ninety-two alone, were recognized as existing on the earth. From the various combinations of these atoms all molecules were formed; and matter as we know it was merely a vast collection of molecules.

The atoms themselves were imagined as hard, spherical, incredibly minute balls of matter. Any object, such as a table, was thus conceived as consisting of an infinity of tiny billiard balls flying about in empty space. If it were possible to magnify the structure of matter sufficiently, it was supposed, these little balls would actually be seen. The theory certainly seemed odd, but was perfectly intelligible. It amounted to this, that matter is really discontinuous. It consisted of an incredible multitude of small particles; but these small particles were still composed of 'matter.'

The twentieth century has completely overthrown this simple scheme. Research has been concentrated on the composition of the atom; and it has been found that, so far from being merely a speck of plain matter, it has a constitution so remarkable as to upset some of the firmest conclusions of science, philosophy and common sense. The science of the nineteenth century ended with the atom; the science of the twentieth century begins with the atom.

All atoms are found to consist of two essential parts: a central nucleus, called the 'proton,' and one or more 'electrons' revolving round it. An electron has only about the two-thousandth part of the weight of the atom. It is the seat of an enormously powerful charge of negative electricity. The proton is far smaller, but has a mass comparable to that of an atom. It is the seat of a correspondingly immense charge of positive electricity.

In the previous century mass was defined as 'quantity of matter.' But another astonishing discovery of physics was that mass was conferred also by electric charge; and, The electron on reckoning up the size of not material an electron and the electric charge upon it, it was found that the electric charge alone was sufficient, or almost sufficient, to account for the whole mass of the electron. In other words, an electron is not in the ordinary sense a particle of matter at all: it is a particle of electricity, and matter appears to have vanished altogether. It is merely a gross appearance based upon electrical energy.

The Victorian doctrine of the indestructibility of matter likewise fell. Electrons can and do vanish out of existence, giving rise to radiation which travels away into the depths of space. The substance of the stars, as we have seen, is gradually disappearing. In its place waves spread out through space, some of which are in the form which we know as light. The old distinction between matter and energy has broken down; for energy also has properties formerly attributed to matter alone. Rays of light are deflected by gravitation; and an estimate can be formed of how many tons of sunlight fall upon the Earth in the course of a day.

For a brief period it was supposed that electrons represented the final stage in the analysis of matter, but their pre-eminence has turned out to be short-lived. Hitherto we have dealt purely with particles, always smaller and smaller, but still imaginable in our mind's eye. It is now suggested that electrons are 'disturbed areas' in space caused by the convergence and coalescence of waves in an imaginary 'sub-aether.' Another point must be mentioned on account of its

profound philosophic interest; namely, that they seem in a peculiar way to be outside the laws of science altogether.

The principle involved is called by Eddington 'the principle of indeterminacy.' If an electron is a moving particle, it would appear that at any given instant it must have

Principle of Indeterminacy a definite position and a definite velocity, both of which might be defined if the measuring appliances of science were sufficiently refined. They are sufficiently refined, but they give an apparently unintelligible conclusion. The position can be ascertained with great exactness, but the measurement of velocity immediately becomes vague. So also the velocity can be measured with great exactness, but only at the expense of vagueness in position. The discrepancy is not due to any imperfection of scientific appliances; it is in the nature of the object itself. To affirm that a particle has at a given moment a certain position and a certain velocity, both precisely defined, corresponds to a very clear idea in the human mind, but to nothing in the objective universe.

We here impinge upon the principle of relativity, and before embarking on that theory a word of caution may be useful. In the older science we might not be able actually to see the objects described, but we could always form an imaginary model of them. Models indeed were constructed showing the atoms within the molecule, and the electrons within the atom. All that we had to do was to reduce them in imagination to infinitesimal dimensions; and we had then a real idea of what they were supposed to represent. But, in the light of relativity, no models are possible. Models are replaced by symbols; and from a world of concrete images we pass into a world of symbolism. Models can be constructed, but they are lame and inept. The difficulty found in grasping relativity is due to our inherent tendency to work in visual images; it is not due to any real difficulty in the subject itself.

Imagine that there existed in the universe only one body, poised in the midst of universal emptiness. Suppose it

was desired to ascertain whether this body was in motion or not, how should we set about it? Every physical process occurring on the body would be the same, whether it was in a state of motion or of rest. The Earth, for instance, is moving round the Sun, and is also moving at high velocity through space with the rest of the solar system, but neither of these motions can be detected by anything occurring on the Earth's surface. On a solitary body in the universe there would be a complete absence of any internal evidence of motion. Neither would there be any external evidence. It would not be getting nearer to anything nor farther from anything, since we have assumed that there is nothing else in the universe. In short, the conception of motion would be spurious. We might with equal propriety affirm that it was at rest, or that it was moving a thousand miles a second. Neither statement would mean anything, nor correspond to any objective fact.

But now suppose that there are two bodies; the conception of motion immediately arises. For they may be getting nearer to one another, or farther off. And if **Motion and size** there are a number of **mere abstractions** bodies, their relative motion can be perceived. Motion is a relation between separate bodies. This is expressed by saying that all motion is relative. Absolute motion is an abstraction in words, with no real meaning.

Size is also an abstraction. If there were just one body in the universe, there would be no meaning in saying that it is large or small. Size only takes a meaning when two things are compared. One thing may be larger or smaller than another, but there is no such thing as absolute size.

Conception of time is in the same case. If no change ever occurred in our single body in the universe, it is clear that to specify a second or an hour or a year would have no kind of meaning. Time only begins to arise when events occur whose duration can be compared. Even then it can only be said that one event lasts longer or shorter than another. Absolute time is another verbal abstraction which has no counterpart in reality.

For our own personal convenience we have set up standards of distance and of time. We have yards and miles, and we have seconds and hours. But these are no more absolute than the space and time which they set forth to measure. In different circumstances they may measure quite different things.

Suppose that a balloon is sailing in the wind and a stone is dropped from it to the surface of the earth, an observer in the balloon, looking downwards, will see it fall plumb beneath him. It will appear to follow a straight line downwards. But to an observer standing on the earth it will appear to describe a parabola. For while falling to the earth it still possesses the motion which it had in the balloon; and, though the point at which it strikes the earth is still directly under the balloon, that point is a considerable distance from the point at which it would have landed had it fallen 'in a straight line' downwards. The path described by the stone appears to one observer as a straight line and to the other as a curve. Which is right?

Both of them are right from their own point of view: neither is right in any absolute sense. To observers differently situated, the stone may appear to describe any kind of peculiar curve. No point of view is more fundamental than any other. But we live upon the surface of the earth, under certain conditions, and it is convenient for us to take the point of view of an observer on the earth. Convenience is the sole criterion. There is nothing absolute about a straight line. From the absolute point of view, it is just as much curved as straight; in the same way that a single body poised in the universe may be regarded as being at rest or in motion, with equal propriety and equal futility.



INTERPRETER OF SPACE, TIME AND MATTER

Einstein, whose photograph appears in page 4704—this is a portrait done in 1920 by Hermann Struck—was the first to resolve the problem raised by the famous Michelson-Morley experiment on the propagation of light; his solution (1905) is called the special theory of relativity. The general theory (1915) embraces all natural phenomena, especially gravitation.

From Einstein, Das Relativitätstheorie, F. Vieweg & Sohn, Verlag

The standards of space and time which we adopt for our own convenience work exceedingly well, so long as we do not attempt to apply them under conditions very different from those in which we live. But as soon as we pass this limitation peculiar things appear to happen. It is found that a body travelling through space at very high velocity (relative to ourselves) becomes shortened in the direction of motion. A book flying through space sideways would become thinner; if it was travelling lengthways it would become shorter. But, viewed by an observer on that other body, it is we who are flying through space, and it is we who are becoming flattened in the

direction of our motion. Which is right? Both are right from their own point of view: neither is right in any absolute sense. Length is purely relative; except as a standard of comparison, it has no real meaning.

The same discrepancies arise with time. At two bodies, remote in space, two events take place. Which happened first? If we observe under particular conditions from one point of space, we may form a different verdict from that which we should have formed under other conditions elsewhere. But which really happened first? The question is futile—like asking whether a given trajectory is a curve or a straight line. It is either, according to the point of view. There is no absolute answer to be given.

The fact is that, to suit our own convenience, we have chopped up nature into a system of space, time, **The principle stresses, etc., which are** of Relativity valid enough for our personal standpoint. But as soon as we get on to problems remote from the conditions of human life, the framework into which we parcel out nature becomes inadequate. Space and time are not absolute properties of nature; they are put into nature by the human mind, for ease of reference and measurement. But after a certain point they no longer serve that purpose. They are for ever leading to contrary results, according to the point of view. Is it not possible, then, to supply a new framework which will not lead to a paradox at every turn? It is; and that is just what the relativists have done. They do not measure space in three dimensions, height, width and thickness, and time in another dimension. They weld space and time into one framework of four dimensions. They add at will other dimensions derived from mechanical concepts; and they thus obtain an altogether new framework, which gives the same results for any point of view of the observer.

The principle of relativity has given a new conception to the law of gravitation. Newton imagined gravitation as a force; and a force is an independent sort of existence that has nothing particular to do with either space or time. But by

welding space and time into a single framework there appears to be no further need for the idea of force. If a fly were to walk in as straight a course as it could over a sheet of paper that was crumpled, its path would be highly tortuous. That is the effect of crumpling in space. But the new continuum of space-time is also susceptible of being crumpled. The proximity of matter does in fact introduce kinks into it; and the path of a planet travelling round the sun is merely the normal path of a body negotiating the kinks in space-time set up by the proximity of the sun. There is no need for the idea of gravitational force. The ordinary geometry of space-time accounts adequately for the observed phenomena. The tendency is for geometry to swallow up mechanics, and, instead of conceiving the universe as the seat of the interplay of physical forces, it suffices to assume a highly complex geometrical structure.

Closely connected with relativity is the famous quantum theory. Long ago, speculation on the nature of light hovered between two rival doctrines: one, that it **Quantum theory consisted of small cor- of Energy** puscles moving at enormous velocity; the other, that it consisted of waves in an imaginary aether. Not till the present century was it discovered that light presents some sort of analogy to an atomic structure. It is emitted as an enormous aggregation of units, which are called 'quanta.' A quantum is not a material corpuscle, nor is it a fixed quantity of energy. Corpuscles and energy are conceptions of the ordinary three-dimensional world; and the quantum resides in the higher sphere of four dimensions. It is obtained by multiplying energy by time. This gives a new kind of existence, to which has been given the name of 'action.' A quantum is merely an atom of action. The quantum theory of light combines, therefore, both the corpuscular and the undulatory theories of the past. It oversteps the limits of thought, which can be comprised within three dimensions, and introduces us to a four-dimensional action which is cut up into universally equal atoms or quanta.

Passing now from the more strictly scientific aspects, we have to examine the general effect of these revelations on modern thought, and how they fit in with pre-existing philosophic systems. As yet they are all too new to have been woven into any general system of thought, and the progress of discovery is so rapid that no such attempt is likely to be made. The most revolutionary philosophic fact is that, as the light of science penetrates more deeply into the unknown, we pass out of the world of concrete entities into a new world consisting of symbols alone. Matter is gradually analysed down to particles smaller and still smaller, till in the end we reach something which is not a particle at all, but merely a symbol, something which however greatly it may be magnified remains radically different from what we imagine in a crude particle of matter. Not only a change of size, but a change of nature has occurred.

To many minds such a conclusion appears self-destructive. But to philosophic minds there is nothing particularly surprising about it. One

Symbolism of modern physics large school of philosophy has always regarded matter as a symbol. Such a view

has always been entertained by idealism. Long ago in the history of thought it was pointed out that subjective feelings are the sole experience of man. Here, for instance, is what we call a table. We know it chiefly by the senses of sight and touch. But what really happens is that the alleged table creates impressions on the nerve endings in the retina and skin. These impressions start nervous currents which set up a commotion in the brain, and that commotion is accompanied by a feeling, or mode of consciousness, which we designate by the name of table. All that we have experience of is the conscious feeling. What has a conscious feeling to do with external reality? The objective table is but a symbol; it is not the thing of which we have immediate experience, but an inference or generalisation; and, if there were no such thing as a sense of vision, the inference would assume a totally different form. A nervous process in the brain cannot possibly resemble a table, and the nervous process (or its psychical

accompaniment) is all that we have cognizance of when we speak of a table. Modern physics has not, as sometimes imagined, whittled away reality to symbols. It has merely replaced the old symbolism by a new symbolism which works better.

Like space and time, matter is relative to ourselves. It is not an absolute reality, but a construction of our minds, woven out of the raw material provided by multitudinous sense impressions. These constructions work well enough, as long as we do not wander too far from home, but they break down as soon as we take an extensive journey into the unknown.

While modern discovery is entirely in accordance with philosophic idealism, it is equally illustrative of scientific materialism, as distinct, of course, from the crude materialism of past times. The relation of cause and effect is

Causation and Determinism

nowhere obscured; nor is there any relaxation from the rigid determinism underlying the workings of nature. This last statement has been denied, and that too by a very high authority; but the denial appears to be based on a misunderstanding. It has been alleged that the principle of indeterminacy, mentioned above, indicates an aberrant or lawless factor at the root of natural phenomena. But statistical law presents a similar indeterminacy. Out of a million people of a certain age it is possible to forecast with a high degree of accuracy what percentage will die within a year; but it is not possible to forecast the duration of life of the actual individuals. Indeterminacy does not mean a denial of causation. The confusion arises from remnants of old metaphysical conceptions clinging to the idea of causation. It used to be supposed that cause produced effect by some sort of compulsory action. The very word 'law' carries with it a suggestion of compulsion. It is entirely contrary to modern thought to imagine scientific law as a kind of supernatural force compelling the obedience of natural phenomena. It is now looked upon rather as the expression of an identity, such as that two and two make four. Cause and effect are no more than the statement

of an identity; they are two different sides of the same thing, joined by a time-relation. The terms themselves are metaphysical, because the whole of language has a metaphysical basis. It is not the theory of causation that is at fault, but the words in which the theory has to be stated.

In one respect progress in the twentieth century follows uninterruptedly the progress of the nineteenth. The centrality and supremacy of man become more and more discredited. In the Victorian age man learned that he was but one kind of animal, among innumerable others, inhabiting a small planet attached to a small star. He now learns that his perception of space and time, and his measurements of matter, are but one way of looking at things, out of an infinity of other possible ways. The larger trend of philosophy has always been away from human centrality; and it is realized that one of the main obstacles to knowledge is in the inveterate habit of mankind of looking at everything from the point of view of their own centrality, and to assume that everything is by nature exactly what it appears to them to be.

The problems of physics seem to be approaching those of psychology. External nature, as ordinary people see it, consists so largely of what is unwittingly put into it by the human mind. Relativity gets rid of much of this intrusive element; but most people still find an almost insuperable difficulty in disentangling the physical and the psychological.

In the sphere of psychology itself the same difficulty arises, and gives birth to such hoary metaphysical controversies as that of determinism versus free will. The position left over at the end of the nineteenth century was that all human activities were due to physico-chemical processes, and that a human being might be regarded as an extremely elaborate machine. On the other hand, there was the immediate verdict of consciousness that various activities could be initiated by an act of will, and were therefore psychological. Continued research has associated ever more closely the

physical with the psychological; and now the belief has arisen that they are in fact not two different things in close correspondence, but an actual identity. According to this theory, a process of mind is no more nor less than a material process in the brain. The identification of two things which appear to be so widely dissimilar need not disconcert us. Physics has already established identities no less surprising. Light, for instance, is an oscillation. Mass is a curvature in space-time. In these instances two phenomena, which at first sight seem

wholly incommensurable, are perceived to be the same thing

Ultimate Solutions still unattainable

looked at in different ways. So, too, the ultimate identification of physical with mental processes may not be far distant. Such a theory is neither materialistic nor idealistic; it is both. Determinism and free will are merely a puzzle of words which dissolves away as the meanings of the words are more clearly defined. Like so many metaphysical controversies of the past, the antagonism is a verbal one. It is due, as the physicists would say, to the use of two different frames of reference.

While modern thought succeeds in untying various metaphysical knots of the past, it must not be supposed that we are in any way approaching a solution of final problems. The more we learn about nature, the more do we become aware of our own ignorance. Every problem that is solved opens up a fresh series of problems not hitherto thought of. The sphere of the Unknown is infinite: the sphere of the Known may be expanding but is always finite. We are no nearer to ultimate solutions than Thales or Pythagoras; the quest for ultimate solutions is merely the symptom of a disordered mind.

What has already been accomplished should satisfy the aspirations of the most exacting seeker after truth. If the past affords any index of the future, the progress of knowledge will continue at ever-increasing speed; and the present century is likely to witness revolutions in thought greater than any which we have here attempted to describe.

MODERNISM IN LITERATURE AND ART

New aesthetic Standards raised in Revolt against Romanticism and the tendency to subordinate Feeling to Form

By OSBERT BURDETT

Author of *The Beardsley Period*, *Critical Essays*, *The Brownings*, etc.

EVERY decade has its modernist movement; but for our purposes we mean by modernism in England the movements, which are varied, that have arisen since the end of the Victorian age (see Chapter 171). Equally every country has its modernist movement; but in dealing with such a wide subject it will be found necessary to concentrate on a few representative examples.

Who, in England, were thought to be modernist between 1900 and 1914, and what were the qualities by which their work was welcomed or attacked as such? Before attempting to answer these questions, we must remember this. Though the year 1914 will be regarded by historians as the formal end of the Victorian era, the ideals on which its social and political fabric rested had shown definite signs of decay more than twenty years before (see page 4535). Beardsley, Ibsen, Nietzsche and Butler had startled attention by holding the Victorian conventions up to ridicule. With the end of the century the old pattern had been broken in pieces, but nothing had appeared to take its place. More people can tell you the things that they disbelieve than the things that they have faith in, and in an atmosphere of mental confusion the human imagination does not create so freely or harmoniously as in a mood in which fundamental beliefs are taken, by most people, for granted.

The years from 1900 to 1914, then, show no particular direction or movement in literature. They show, at most, the destructive criticism of the preceding decade, less shrill in tone, persisting, and trying here and there to be constructive, too. The realists and 'ninety men' had freed writers from several restrictive

taboos; no one was now abused for saying in a novel that two lovers kissed each other on the mouth; no one any longer believed that unions without the sanction of the church were relations impossible to mention in a book. George Eliot had lived and dared. It was no longer supposed that the whole duty of a parent was to break the will of his child, or the whole duty of a man to be respectable and to make money. Girls were leaving their homes, and finding openings of all kinds in shops and offices, as a matter of course. Young men were presented with latchkeys; and writers had won a similar freedom for their pens. In this more sociable world young women on their own were as common as blackberries, and, if they were that way inclined, made friends and had affairs much like their brothers.

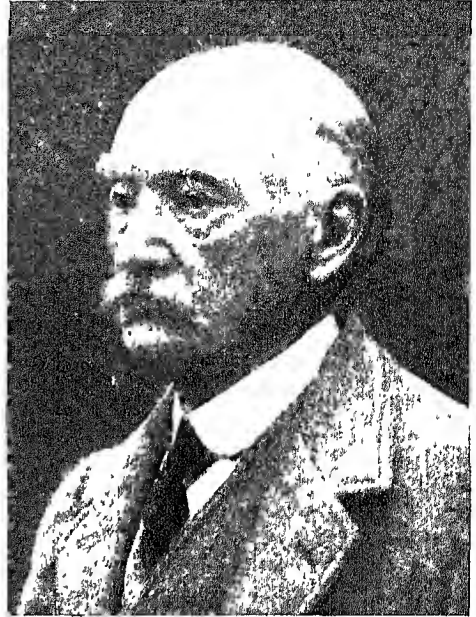
Reaction against
Victorianism

The doors had been opened. It was all very pleasant—but what was literature to do? There was no driving motive, unless description was one, and no further influence from France arrived to replace the one that Zola and the realists, Flaubert and the passion for beautiful writing, had given to the outmoded Yellow Book school. In this relatively happy but rather rudderless decade all we can do is to follow the course of literature up to the Great War.

Like a bomb set to explode some time after the fuse had been lighted, *The Way of All Flesh* was published in 1903, a year after Samuel Butler's death. Its wonderful fidelity to the life of one type of mid-Victorian home was not fully recognized for a year or two. Young people

had already reacted violently from the Victorian age, and the adjective Victorian had degenerated into a word of uncritical contempt. They were now forcibly reminded of the atmosphere from which they had escaped, though they did not always remember that they had escaped because their parents had interfered with them much less than their grandparents had with father and mother.

The *Way of All Flesh* had been written of such a parent, though Butler himself remained a bachelor to the last. His book showed how the parents of his hero had tried to break the will of their son, and had been defeated; how religion had been made an excuse for punishing him, education for deceiving him (as it always is more or less), and duty for making him do everything he loathed, and for forbidding him everything his healthy instincts craved for. The bad side of domestic life in the Victorian age had been put into a book at last, a book faithful and detailed, and the more impressive because the author did not



THOMAS HARDY

Already a dominant figure in Victorian literature by virtue of his gifts as poet and novelist, Thomas Hardy (1840-1927) produced his masterpiece in the epic drama of *The Dynasts*, published when its author was nearing seventy.

Photo, Walter Thomas



SAMUEL BUTLER

In his posthumously published novel, *The Way of All Flesh*, Samuel Butler (1835-1902) presented the early twentieth century with a faithful picture of the conventions and restraints that typified life in the Victorian Age.

Painted by C. Gogin; National Portrait Gallery, London

attack the parents but showed them behaving, with the best intentions, according to the convention of what was then thought respectable and appropriate. Its dusty, gritty style suited the dreary domesticity of the scene. Young people, who have no nerves, stomach this bitter dish without difficulty, and awoke to the discovery that, if the Victorian age was at once romantic and material, it was also interesting and worth study, like any other period. Reaction was virtually over: study and criticism about to begin.

The virtues of the book were proclaimed by Bernard Shaw, who became himself a figure of controversial interest to the younger generation in the following year, 1904, when with John Galsworthy and a few other playwrights he began to present play after play for two years at the Court Theatre. He told his audience that idealism was the devil; that the behaviour of the parents in Butler's novels had been inspired by romantic ideals; that a person had a duty to himself, and that if he would only follow his own instincts, as Butler's

boy had done in resisting his parents, he would discover that he had restraining impulses as well. Shaw also said that all established religions were incredible but (there being fashions in human beliefs) that the theory of evolution was not. He then wrote a play called *Man and Superman* (followed twenty years later by *Back to Methuselah*) to show that a religion might be made of this way of looking at life. He was also a socialist and filled his plays with discussions of industrial society from a point of view so detached that it was often very witty; and discussed marriage, doctors, the Salvation Army, the suffragettes, from the point of view of one with the latest information about all these things and with no other idea than to bring the searching light of common sense to bear on them.

In a word, he made the theatre do all those things which the newspapers are supposed to do, and do not; and he was so good-humoured about it all that he was irresistible to any youngster with a scrap of curiosity about life. Though Shaw had been hammering away at all these matters for twenty years, he seemed very modern to those who had never heard them discussed until his wit surprised them into attention at the Court Theatre. Galsworthy and Granville Barker were doing similar

work in their own way at the same time and place, and the English theatre, still deaf to the enthralling plays of Ibsen, woke up to the fact that discussions could be made interesting on the stage.

In 1904-8 the veteran novelist Thomas Hardy, who had returned to poetry late in life, published *The Dynasts*, a huge epic drama of the Napoleonic wars, in which the conception of the whole human destiny also arose from the evolutionist's standpoint. The theory was inspiring poetry at last. In the novel H. G. Wells's vivid imagination and lively creation of character and atmosphere were inventing romances of the future of man, as he might be conceived evolving, and descriptions of poor shopkeepers and clerks suddenly turning their backs on the counter and finding their own souls in a free, if desperate, struggle with life. Galsworthy described the home life of the well-to-do, Arnold Bennett the provincials of the Midlands. Theirs was a much more sober affair than Wells's dashes for freedom, but no less true to life.

Almost at the same moment a genuine tramp, who happened to be a genuine poet too, told his personal experiences of people who live without a stiver and without work, and reminded his hearers that the possibilities of life, and even of fellowship



WRITERS WHO ACHIEVED EMINENCE IN THE EARLY TWENTIETH CENTURY

The original genius of the Irish playwright George Bernard Shaw (left), born in 1856, has produced a series of witty, unconventional plays which intrigue and stimulate modern audiences. Brilliant powers of imagination and expression have raised Herbert George Wells (centre), born in 1866, to a foremost position among contemporary novelists, while it was the great gift of Arnold Bennett (right), in his forceful novels, to bestow vitality upon the humdrum lives of ordinary people.

Photos, Vandyk, Gainsborough Studios and E. O. Hopps

and travel, are by no means stifled under these conditions. The class that W. H. Davies described in his *Autobiography of a Super-Tramp*, which first appeared in 1908, was new to modern literature, though the type is as eternal as the stars. Human nature in the raw, when a man has enough simplicity or imagination to describe it vividly, is always modern, and his book was a welcome reminder that a life of disreputable adventure is as possible as ever, even in a rigidly policed modern city, without necessarily getting on the wrong side of the law. Novelists

Human nature like Arnold Bennett, whose **always modern** *Old Wives' Tale* made his success in 1908, and a little later Rose Macaulay and Compton Mackenzic, were busy describing contemporary society in the more respectable, but now innumerable, walks of life.

All these authors held, in effect, the modernist outlook, implicitly at any rate. Bennett revelled, as illiterate folk with comfortable bank balances would revel if they had his capacity, in modern *de luxe* hotels, commercial swank and display, big tips and heavy dinners, garish lights and the whole machinery by which expensive life is organized on a paying basis by cosmopolitan big businesses. He found the 'spectacle of lavish spending amusing after his provincial studies of the drab Five Towns. To read some of his novels was like entering a huge restaurant, and attempting to be intimate with one's guest above the blare of the band. The Grand Babylon hotel, jazz music, dance clubs for everybody! What could be more true to the day, what more free from the earnest ideals that the benighted Victorians had held dear? How could anyone have taken them seriously?

In this whirligig a very amusing book of criticisms was published under the title *Heretics*. Written by Gilbert Keith Chesterton, it appeared in 1905. The word 'heretics' had gone out of fashion with the beliefs that had given it meaning, and the heretics whom Chesterton had in mind were precisely such modernist writers as we have glanced at. He was as lively as the liveliest of them, and more paradoxical in his manner than most. The fun was this: he used his gusto and

flashed his epigrams in defence of the old-fashioned things, of romance, of religion, even, if you please, of Christianity. It is the merit of Chesterton's *Orthodoxy*, published in 1908, that it forestalls a revival which is stronger to-day than it was then. His defence of tradition from the romantic quarter is now enforced by T. S. Eliot's from the classical.

The last sauce to jaded palates was to see the advanced guard sharpshot by one of themselves; and Chesterton's readers were reminded, as a fact worth notice, that Shaw, Wells, George Moore, and so forth, were not orthodox Christians. That the reader was not one either, very likely, made him sit up the more if he, too, had lazily admired, without intelligent scrutiny, these critics of the old order. The book had a deserved success, and Hilaire Belloc's volumes of poetry, history, fantastic romance or political criticism, written by a Roman Catholic and a democrat, soon followed, to proclaim traditional beliefs and opinions once more. The pair laughed at sceptics, reminded us that Chesterton and many sweeping scientific Hilaire Belloc assertions were unproved, mocked socialists, attacked teetotalers, and did this with such spirit and humour that the books were jolly to read. Indeed, Belloc showed a gift for recalling our ties with the remote past as real, at least, as Wells' gift of successive guesses at the future. Once read Belloc's *Europe and the Faith*, *James the Second*, or *How the Reformation Happened*, and you begin to realize how one-sided was the history taught at school. His sense of historical perspective gives you an unforgettable vision of our creator, the past.

The two, Chesterton and Belloc, also showed a talent for invective that only comes from sincerity of feeling. They were the first to attack the secrecy of the political party funds, the sale of honours and the wire-pulling by finance that seem inseparable from politics. They warned us that 'social reform' might lead us to the 'servile state.' Their claim to give voice to the normal, uncorrupted English instincts for beer and skittles, religion and romance, was not affectation, because there is French blood in both of them.

What we take for a matter of course, or have forgotten, is vivid to an observer with a more detached and critical view.

The chief new poet of the time was Walter de la Mare, whose magic, recalling Poe and Coleridge but exquisitely his own, was generally revealed to the world by *The Listeners*, published in 1911. A group of younger poets, collectively coming to be known as the Georgians, was also producing volumes of verse. If none created a sensation, they attracted attention to contemporary

poetry at a time when many of their generation would not read Tennyson or Browning, and craved for something new.

It was John Masefield who supplied the need with his galloping narrative poems, sometimes spattered with the language of ruffians. These began to appear, also in 1911, with *The Everlasting Mercy*. Nothing could have been more up-to-date than the matter or the manner of these exciting novels in verse. The first was written with great vigour, and added the abuse of the gutter to the



George Moore



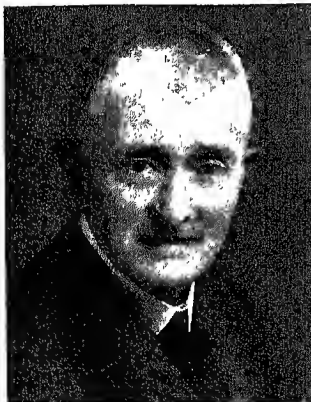
W. H. Davies



G. K. Chesterton



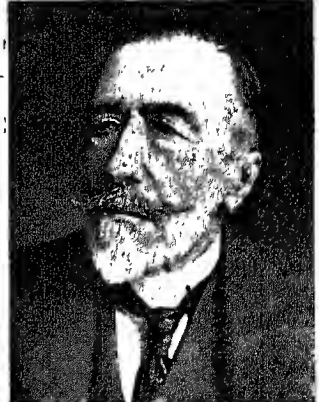
Hilaire Belloc



John Masefield



Walter de la Mare



Joseph Conrad

POETS AND PROSE WRITERS WHO REPRESENT THE MODERN AGE

In Walter de la Mare and John Masefield the poetic spirit found modern interpreters, and W. H. Davies, tramp and poet, struck a new note in literature with his *Autobiography of a Super-Tramp*, published in 1908. G. K. Chesterton and Hilaire Belloc produced works of outstanding merit in widely divergent fields, with a prevailing note of fantasy. Great imaginative power characterises the writings of Joseph Conrad, while the stories of George Moore may be classed as realism.

Photos, Elliott & Fry, Swaine, E. O. Hoppé, Foulsham & Banfield, Elliott & Fry, and Annan

freedom recently not won, but recovered, for print.

Another aspect of the mild impatience with the respectable routine of middle-class life was a revival of interest in the gipsy volumes of George Borrow, who had found a poet's pleasure in the society of the people of the roads, with their scorn of appearances, of settled habits and the regular snug comfort of our town and suburban life. The gipsy's tent (see Augustus John's earlier pictures) became as fascinating as the artistic Bohemia which du Maurier had made popular in *Tilby* some twenty years before.

It was now a century since England had been engaged in any war in the west of Europe. The machinery of settled

Growing impatience with Convention society seemed to be running with the repetitive movement of an engine. Where was

youth to escape boredom except in the free and easy life of the studios, or in the open air among villages whose traditional remoteness was already being invaded by the inquisitive motor? There was a mild restlessness in the air; the book of ideas and the life and literature of Bohemianism, in wild Wales or Whistlerian Chelsea, were the only recognized escapes. Both of these were too tame to be long satisfying, for did not the new garden cities take a respectable delight in them?

All this created little lasting literature, but it was the atmosphere in which any original genius that might be forthcoming had to grow. The impulse, as the bare description shows, was too thin; there was neither the impetus of some personal example, nor the excitement of a new artistic theory, to quicken the imagination. For ideas about things, that is, the realm of opinion (always changing as circumstances change), produce the best journalism; they rarely produce fine literature. The reason is that the realm of opinion is superficial, and the aim of the journalist to produce an immediate effect by the straightest road. Now both such subjects and such treatment address the fringe of the mind rather than the imagination, while the influence of poetry and art is always indirect: by casting a persuasive spell upon the feelings, and

touching us in letters by unforgettable combinations of sound and sense which we cannot, and do not desire to, analyse.

Shaw and Wells were journalists of genius: Aristophanes, Swift and Voltaire, with whom they have been compared, were beautiful writers as well, and are now read for the literary art of which they were masters. The prose of the two moderns is rotten with journalistic catchwords, with the hasty and dusty phrases that lie like waste paper or yesterday's posters on the pavements of Fleet Street. There are finer passages, of course, but in the main, to use an image of W. B. Yeats, both prefer 'plain water to every vintage, so much metropolitan lead and solder to any tendril of the vine.'

The consequence was that, except for the village well of W. H. Davies' poetry and the magic spring divined by the rod of de la Mare, the most imaginative work of this decade was being done by an older generation whose autumn seemed to release new powers, as the leaves in the fall of the year flame with more than the summer's colour. Hardy gave himself to poetry, and, crabbed in style as it may be, and *Indian Summer* monotonous in its note of the older age tragic disillusion, it was original, highly personal to the author, and often beautiful. Joseph Conrad, too, was beginning to come into his own, with the brooding mystery with which at his best he endows his characters, in a style looming with shadow and shot with light. Against the enormous background of the open sea or sky Conrad's creatures, like Hardy's peasants, are vested with an imaginative dignity that mere fidelity to present-day circumstances can rarely give. Conrad's brooding imagination had made his novels moving, for there was no overt departure from tradition here. With the short stories of Irish character, collected under the beautiful title of *The Untilled Field*, in 1903, and with his novel *The Lake*, of 1908, George Moore first created the last and most beautiful of his three styles. He composed tales as human and lovely as the old Greek legends, and, in the plenitude of his powers, entered on the path that was to lead him to his finest short

stories, *A Storyteller's Holiday*, and to the purest of his very personal criticism, *Avowals*. Nor was the Irish school dead; Yeats, now more austere in manner, continued to compose in verse and prose; James Stephens gave us in 1912 his fantastic fairy tale *The Crook of Gold*; Lord Dunsany was inventing his imaginative plays and stories, half Oriental, half grotesque, sensitively and delicately written.

The long afternoon into which Victorianism and its overflow seemed to have settled was ended when war was declared in August, 1914. As we now see, the shock of this, though (as usual) the war itself inspired little good literature, released the new talents that were preparing. Its immediate effect was to fix on Rupert Brooke as the poet typical of all the others that went down with him in the conflict. His poetry became accepted when the demand arose for sonnets as well as shells, and his five, in spite of obvious weaknesses, show a talent true if slight. His name, moreover, was a beacon to the group of Georgians of which he was already the best known.

It is invidious to single

out names among the war poets, for war poetry rarely endures. Its ardours seem unreal when the inevitable reaction has chilled them, and its bitterness becomes alien to our sympathy once the horror is a hateful memory which we wish to forget. Siegfried Sassoon was more cruel in truthfulness than most; but what imagination can survive such suffering unseathed? The war apart, some of James Elroy Flecker (d. 1915) is worth remembering, and the relative artistic success of his Oriental play *Hassan*, which was better to read than to see acted, proved that he could write prose and dialogue with some of the opulence of De Quincey. He might yet have given to us that poetic drama for which we still have to wait. Ralph Hodgson, in *Eve* and in *The Bull*, to take

his best known poems, has added to English lyrics, both modern in the sense that the modulation was his own.

After eighteen months of war the craving for literature, which nothing can still, began to assert itself insistently. A still younger group, including Aldous Huxley, Sherard Vines, Edith Sitwell and her two brothers, produced an anthology of 'new poetry' called *Wheels*, and about



DISCIPLES AND DEMONSTRATORS OF 'THE NEW POETRY'

With the verses of Edith Sitwell, whose annual anthology of modern poetry, *Wheels*, was first published in 1916, there came a new, at first anomalous, reaction in literature. Among the contributors to this 'new poetry' were Sherard Vines (centre) and Aldous Huxley (left), whose brilliant wit and satire have earned him his high reputation as a novelist. Right: P. Wyndham Lewis, member of another poetical group who experimented forcefully with new forms and subjects.

Photos, Elliott & Fry, and Press Portrait Bureau

the same time the artist Wyndham Lewis and another group united in *Blast*, the title of which was an apt summary of the manner. To the man in the street the only quality that distinguished much of this new work from prose was that it was printed differently; but there was far more than mannerism in the best of it. Put summarily, the idea is to break the fixed regularity of ordinary verse much as Blake and the Lake Poets broke through the strings of the couplet; to write entirely by ear, to shun logical repetitions of beat and to bring new subjects into poetry—because all that could be said of the rose or the moon, the spring or one's mistress, had been said already to weariness, at least in the familiar forms of verse.

New subjects and new forms were wanted, and the new poets made a gallant experiment to find them, which inevitable ridicule did not kill. When Dr. Ernest Jones issued at the close of the war his *Studies in Psycho-analysis* the new clue to our human make-up fell on fertile soil. Its apparent contempt for the convention of human dignity gave a zest to those who



EUROPEAN AUTHORS OF DISTINCTION

The Sicilian playwright Luigi Pirandello, born in 1867, is famous for his powerful dramas *Henri IV* and *Six Characters in Search of an Author*. The French Marcel Proust (1871-1922) used a Freudian method in his *A la Recherche du temps perdu*, a brooding analysis of his life's experience

Photos, E.N.A. and Otto

had seen human dignity amid the slaughter, and had no illusions to be dispelled. Psycho-analysis promised a field as fertile to the novelist as the now familiar theory of heredity; but these special clues to character appeal, in literature, to a curiosity that, soon satisfied, is short-lived.

With the admission that all new truth and all new forms in art seem ugly on their appearance, for the unfamiliar is suspect at first, we have to use our intelligence to discover who is genuine and original, who imitative or absurd. It is now apparent why D. H. Lawrence should be preoccupied with sex; he wishes us to share his explorations, to grow in wisdom and sorrow, in the old phrase, and to compensate us, if he can, with discovery of beauty in the old mystery he would unravel. Of the same generation is James Joyce, who published *The Dubliners* in 1914, *A Portrait of the Artist as a Young Man* in 1918, and his gigantic study of all that passes, unconscious or conscious, through the mind in a bare twenty-four hours, in *Ulysses* in 1922. A single day was described in a thousand pages. "The new poets, too, sometimes make abstract



WRITERS OF THE PSYCHO-ANALYTIC SCHOOL

James Joyce (right), born in Dublin in 1882, is best known for his *Ulysses*, published in 1922. Among his other works are *The Dubliners* and *A Portrait of the Artist as a Young Man*. David Herbert Lawrence (b. 1885) has written novels, stories, plays and poems which express the reactions of sex conflict.

Photos, Elliott & Fry and from H. S. Gorman, 'James Joyce,' Geoffrey Bles

patterns with words, intended to please by their rhythm, perhaps by their incongruity, rather in the manner of nonsense rhymes, though deliberately without rhyme or regular verses.

Without any war, as we shall be seeing in the studios, this would have been attempted, for a live tradition implies experiment, but the war probably gave an impulse to the desire. For example, the Victorian age was now seemingly remote, and people began to study it from a standpoint that was called cynical, partly because the standards had moved. The satire of one generation may become the common sense of the next. Lytton Strachey's *Eminent Victorians*, which examined famous personages off their pedestals by the light of a critical intelligence, and his later study of the character

of Queen Victoria, displayed a welcome detachment that would hardly have been possible to men of the old time, simply because they were too close to one another. It is still too early to see existing modernists in perspective; Cardinal Manning and Gladstone were similarly handicapped in respect to one another. Modernism is anti-romantic, experimental, critical and possibly too detached and disillusioned to create great poetry, though the sincerity of its attempt to reflect and illumine the groping currents of the time is sincere. In *The Constant Nymph*, 1924, Margaret Kennedy recovered the pre-war atmosphere beautifully.

About the same time Pirandello's plays reached the English theatre. He has added nothing to philosophy, but he has made Berkeley's two-hundred-year old



NATURE AS EXPRESSED BY THE DELICATE ART OF COROT

Prominent among members of the Barbizon School was Jean-Baptiste Camille Corot (1796-1875), whose *Flood* is reproduced above. This painting is a typical example in the artist's later manner, and reveals the atmospheric qualities and softness of handling which are the dominating features of his work. In such simple subjects as this did Corot and the impressionists who followed him find full and lasting expression of their conceptions of nature.

National Gallery of British Art, Millbank; photo, W. F. Mansell

philosophy the basis of fascinating and, at first, bewildering plays. From France has come the influence of Proust, whose vast novel in eight volumes, *Remembrance of Things Past*, had explored the recesses of memory with a marvellous skill. His involved style becomes the very skein of memory, beginning at the point where workaday memory fails.

The plastic arts, modernist painting and sculpture, being more independent of ideas, and tied to stiffer material, may strike the eye more oddly but are easier to understand. The Romantic movement in painting culminated towards the end of the nineteenth century in the impressionists. These had turned aside from the servile copying of nature, which everyone could recognize at once, because they

did not want to go on doing what had been done to perfection ever since the discovery of perspective over four hundred years before. On a flat surface perspective had been able to represent a square house, a whole valley, a range of mountains, so that a landscape hanging on the wall gave the effect of looking through a window into the country. The impressionists saw also that objects appeared to different people differently, and severally determined to paint what they saw; not merely what they knew to be there.

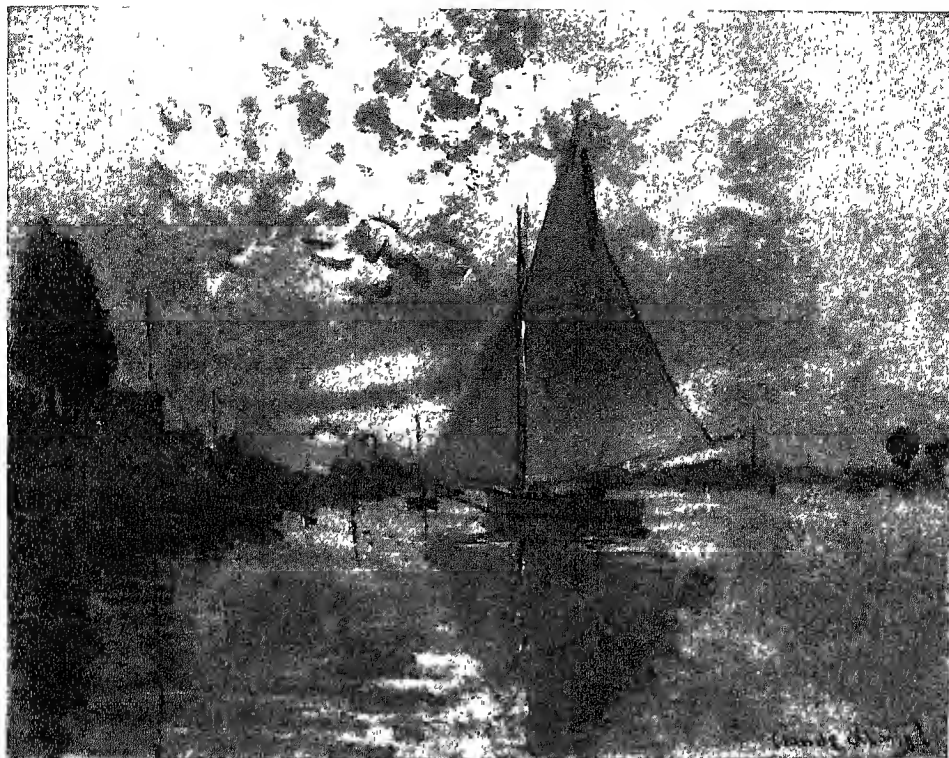
To the eyes of Corot, the leaves on a branch in the twilight were as indefinite and as lovely as a puff of fading smoke, and no landscapes give one man's response to the poetry of nature more exquisitely than Corot's. The impressionists also



DEGAS' BRILLIANT EXPOSITION OF HIS FAVOURITE THEME

This picture, *Répétition d'un ballet sur la scène*, is representative of the subjects that inspired the French artist H. G. E. Degas (1834-1917) to produce much of his best work in painting, pastel, etching and aquatint. A stern realist, he always looked behind the scenes, preferring to surprise the faults and strivings of a rehearsal rather than the glittering perfection of final performance; a washerwoman at work, a fat person drying herself, an odd movement of the body, rather than a 'beauty' or fine clothes. He was a superb draughtsman.

The Louvre; photo, Giraudon



RIVER SCENE BY THE FOUNDER OF THE IMPRESSIONIST SCHOOL

Claude Monet (1840-1926) is accepted as the founder of the impressionist school of painting and a master of 'luminism'. His knowledge of the resolution of white light into the seven colours of the spectrum resulted in his adopting colour schemes of surprising brilliance, and a novelty in his technique was the use of broken colours, producing a shimmering effect which was especially happy in his representations of moving water or a flood of sunshine.

Photo, Drouel

saw that the colour of everything changed with the play of light, and that perhaps a sensitive eye would never twice see grass in identical tones. So they studied the effects of light, whether the shimmer in the blaze of sunshine or the subtlest of tones under a cloudy sky. In this way they tried to teach the rest of the world to see the complex colours really before it, instead of the crude colours crude men expected to find.

The art of their pictures—at their worst, smudges of colour and must—technically lay in the combined truth and harmony of the innumerable gradations of delicate tones that they assembled. It was an individual and truthful way of looking at the world: individual because the artist gave the impression that he had received, truthful because he gave it in every range of tone, without heed to the way in which it might impress a cruder

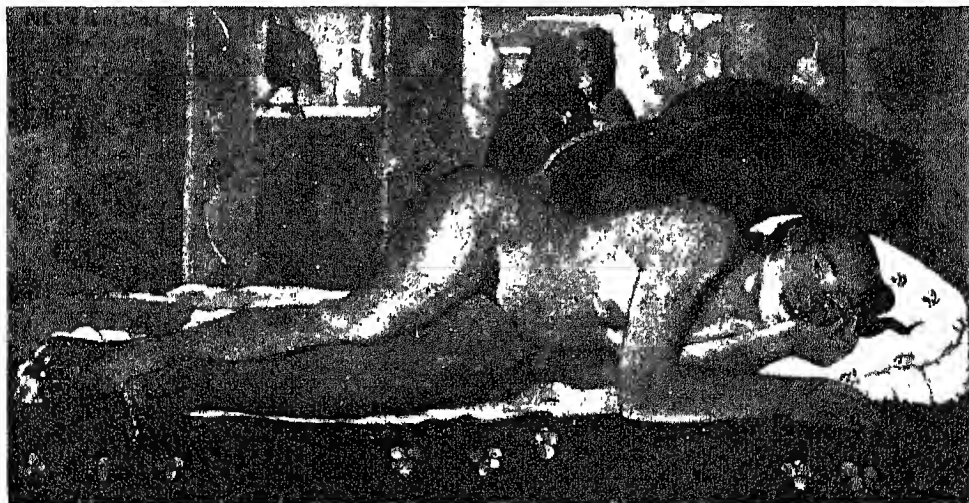
eye. What more was left for the painters who came after to do? Had not naturalistic painting been carried to its limits by impressionism?

The post-impressionists, as they called themselves, reached the general public of London about ten years after they had won recognition in Paris. An exhibition of their works was held at the Grafton Galleries in 1910, though the work of Manet and Gauguin and Van Gogh was becoming known to a few English artists already. The post-impressionists declared that painting had become too complex and too naturalistic. The impressionists, they said, had sacrificed too much to representing nature with scientific subtlety, and were doing, if more truthfully, what their predecessors had done. Art, said the newcomers, is not truth; it is not nature; it is a pattern or rhythm of design that we impose on nature.



Impressionism was a development of the 'plein air' method of painting whereby subjects are presented realistically in full daylight. Edouard Manet was the originator of the plein air school, and in his works realism and impressionism are blended with the happiest results. A notable example is this *Bar des Folies Bergère*, first exhibited in 1882, a triumph of composition and colour and extraordinarily clever use of reflections.

Courtesy of Mr. Samuel Courtauld



Paul Gauguin (1848-1903) began as an impressionist under the tuition of Camille Pissarro, but developed on independent lines. His work, of which this *Nevermore* is admirably representative, is essentially decorative, broad outlines constituting the principal feature of the construction of the pattern and enclosing large areas of rich colour applied in masses. In 1891 he went to Tahiti and specialised on painting the primitive people of the Pacific Islands in a primitive style.

REPRESENTATIVE WORKS OF POST-IMPRESSIONIST MASTERS

Copyright, Syndicat de la Propriété Artistique



SUNFLOWERS BY A NEO-IMPRESSIONIST

Pissarro, Gauguin and Seurat chiefly influenced the technique of Van Gogh, who in his brief career developed into one of the foremost neo-impressionists. The feature of his work is broad design with masses of splendid colour.

State Gallery Munich; photo, Hanfstaengl

One of the first English artists to react against impressionism was Augustus John, whose pictures, often figures placed as part of a decorative design in a landscape, tend towards simplification. All are decorations, and the same is true of the best of the portraits that came from him after his reputation was made.

The beauty of art resides in the arrangement, though why such and such a relation of line and colour should be beautiful no philosopher has explained, and no artist needs to know. Beauty is the name we give to a form which happens to have significance to our imaginations. The imagination satisfied, the sense of beauty satisfied, who cares whether the pattern itself is like anything else? Is not a Persian mat as beautiful as any landscape? Indeed is not the appeal purer, more imaginative, precisely because

it satisfies that sense alone? Let us unload all this knowledge, and set our imagination free! Why copy? Why not invent? Is not a beautiful invention a richer expression of your own imagination than a literal rendering, however subtle or exquisite, of any subject external to you? The impressionists had shown to normal eyes aspects of nature which they had missed. The post-impressionists went beyond the impression in search of the quality by which an object stirs the soul.

For example, everyone knows Blake's poem called *The Tyger*. It has not a word of description. It does not show a tiger as its stripes divide in the glare of the desert sun or fade in the shadow of a passing cloud; but it gives with extraordinary



SELF PORTRAIT OF VAN GOGH

Vincent Van Gogh (1853-90), a Dutchman, began to paint in Paris in 1886. A landscape is given in the plate facing page 5027. Always a highly temperamental man, his mind became unbinged toward the end of his short life.

Courtesy of Mr. Samuel Courtauld (copyright Syndicat de la Propriété Artistique)



A FOREMOST BRITISH MODERNIST

Fine draughtsmanship, simplification of form and decorative use of large masses of colour are notes of the work of Augustus John (b 1878), who, in his earlier work particularly, shows a predilection for gypsy types. The *Orange Jacket*, charged with intensity and personality, is typical of John's method.

National Gallery of British Art, Millbank; courtesy of the Artist

beauty and vividness the mental suggestions that the word 'tiger' arouses in the mind: the strength, the terror, the splendid animal ferocity of the beast. So with the paintings of the post-impressionists. A scientist who had never visited the Zoo or seen a photograph or picture would be puzzled and indignant if presented, for his purposes, with the lines of Blake's poem. The verses do two things: they give us the tigerishness of the tiger, and they make a beautiful abstract pattern in words. They simplify the animal to the sensation, none the less beautiful for its terror and strangeness, that it evokes. Thus, too, a rocking horse, or a child's drawing of a person (which is hardly more 'like' any human being than an extravagant caricature), may be a work of art.

It may appeal to the imagination to a degree that a 'good likeness' or a recognizably drawn horse can never reach.

Curiously enough, a great impressionist painter, Manet himself, was also the bridge to post-impressionism. By painting his objects with the light full upon them he had to simplify the planes into which all pictures of solid objects in the flat necessarily fall. This simplification was not only true to nature, but sometimes had the effect of an abstract pattern. He had ceased to be interested in the gradual play of light and shade; he put plain colours side by side. He converted his subjects into a simplified pattern of lines and opposed colours. The black and white squares of a chess-board are a simple abstract pattern; indeed, the cheek is a pattern that is never long out of favour in clothes and hangings. Such abstract patterns as were suggested by the interior of a room, with its shapes of chair and table-legs for instance, began to be painted.

They were received with ridicule because the public could only see that the painter had bothered little with exact perspective and had apparently arranged his lines and contrasted his colours as a clever child might use his paint box before he had been 'taught to draw.' People were blind to the formal pattern, because they were looking for what they expected to find—that is, literalness of rendering, the very object that the artist was determined not to give. As useless, then, to tell these folk that the design was beautiful and the chair and table used to form a design chosen by the imagination, as to give Blake's poem to a scientist who was curious to study tigers.

It was Cézanne who carried the least impressionistic side of Manet's work to its



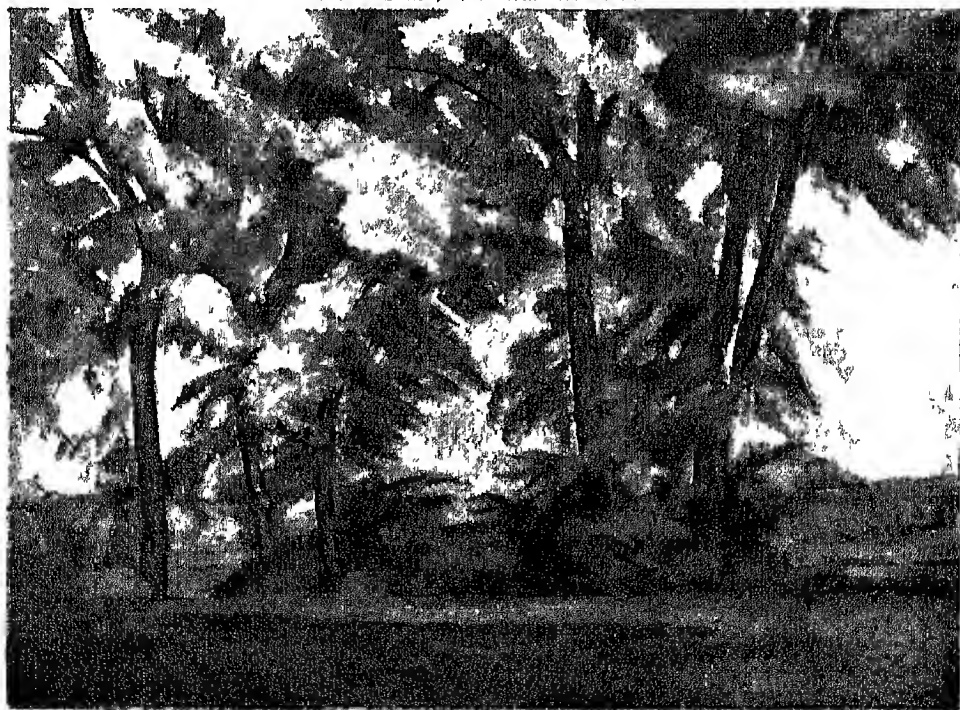
THE SMILING WOMAN

In respect of no other quality is the portraiture of Augustus John so entirely individual and distinctive as in its almost uncanny penetration into the enigma of personality. His *Smiling Woman*, a representative canvas, is further remarkable among his works for the completeness of its finish.

National Gallery of British Art, courtesy of the artist.



As a post impressionist Vincent Van Gogh showed indifference to naturalism in colour, concerning himself chiefly with pattern. In this Landscape with Cypress Trees something is reflected of the unrest which affected his always sensitive mind.
National Gallery of British Art, Millbank



Subtle modulation of colour and delicate sensitiveness to atmospheric vibrations are distinguishing characteristics of Paul Cézanne's landscape work, in which also particular care is devoted to structure and design. Although, under the influence of Pissarro, he gradually enlarged his palette, he ever had a preference for subdued almost sombre tones, as exhibited in this charming study, *Les Grands Arbres*.

REPRESENTATIVE LANDSCAPES BY TWO FRENCH MODERNISTS

full independence. The result was to remind people of primitive work, work done long before the trick of perspective was discovered, in the childhood of mankind. Now all design, all pattern, as the chess-board reminds us, is at root geometrical, an arrangement of straight lines, squares and curves. It was this return to simplification to which Cezanne led the way. He made pictures like patterns, for the pleasure a pattern can give. Gauguin and Van Gogh used the same method to express visions and feelings, as if Blake's poem represented, as the words indeed imply, not so much the first tiger as the idea burning in the mind of God before He called this wild creature into existence. From the complexity of appearances that art had learned to render to perfection, and had thus left painting



SELF-PORTRAIT AND EASEL PICTURE BY A POST-IMPRESSIONIST

During his life Paul Cezanne (1839-1906) was rated with the impressionists, but as a realist much more interested in the solidity, density and geometrical form of objects than in the fugitive effects of light upon them, he was rather the first of the post-impressionists. Power of characterisation distinguishes his portraiture of which the self-portrait (top) is typical. The Card Players, one of several versions of the subject shows his appreciation of the dramatic value of contrasting light and shade.

The Louvre photos, Archives Photographiques and (top) Mansell

nothing more to do except repeat, the simplicity of form and structure was disentangled. The resulting pattern, in the hands of an artist with a sense of design, produced a new beauty; refreshing because it was abstract, a type, as it were, eternal because free from the minor differences of individual and perishing substances.

Now abstract form and colour have a mysterious and grand appeal to the imagination. There is much of mathematics in music and architecture, and the higher mathematics have been called the poetry of pure reason, as anyone can understand who notices how, to take a simple example, the problems of Euclid are 'beautifully' worked out. Thus from one point of view the post-impressionists returned to primi-

tive, even to barbaric, simplicity. They brought negro sculpture into fashion. From another point of view they sought in art to give the abstract pleasure of pure symmetrical forms. Weary of copying nature, they returned to the simplicity of the child—or of the savage—artist in one direction, and aspired to the contemplation of abstract design in another.

This endeavour was carried farther by Matisse, whose search for abstract pattern often went so far as to deprive his subjects of almost any resemblance to nature. It was natural that the public should ridicule such work at first, because the whole progress of art, hitherto, had appealed to the public by ever closer resemblance to the appearances of things which were apparent to everybody. As

this resemblance was further departed from, and the appeal was increasingly made to the sense of pure design, it was inevitably found that this sense is cultivated by few, and that the public's delight in art should be revealed to be mainly the pleasure of applauding imitation. It was very easy to caricature and to imitate the new convention. Nothing more seemed to be required than helpless ignorance of drawing, the putting of the crudest colours side by side, with no aim but to irritate and startle.

This modernist painting, however, is not an extravagance bequeathed by the war, but was a movement already on its way before the war started. It spread to the applied and decorative arts when Roger Fry opened his Omega workshop, the 'last word' in decorative design. You could see there a rug or a carpet with a fringe at one end only, and apparently composed of unrelated fragments of different patterns. The idea was this. Every pattern, from the pip of an ace of hearts upon a playing card, is the



VASE OF FLOWERS BY MATISSE

The barbaric simplicity which the post-impressionists reintroduced into art was carried to extremes in the designs of Henri Matisse, born in 1869, whose pursuit of the abstract inclined to produce the unnatural. Characteristic features of his style are restraint and delicacy of colouring.

Copyright, Syndicat de la Propriété Artistique



CUBIST PORTRAITURE

A Spaniard born at Madrid, Juan Griz (1888-1927) settled in Paris in 1905, and with Picasso, of whom he painted this portrait in 1912—strangely unlike the self-portrait below—was one of the founders of the Cubist movement.

Courtesy of 'Artwork' (Flechlheim Collection)

repetition of two halves, the second reversed. An old Persian mat, any geometrical pattern, if cut in two and separated will suggest its other half without difficulty. The missing half is a logical repetition of the first half turned over. When, however, the mind knows exactly what to expect, the imagination may be bored rather than satisfied, for there is always something strange and beyond explanation in every beautiful thing. How could this wonder, that the skilful achievement of the completed pattern had originally excited, be recovered? Could it indeed be recovered without disappointing the eye of the repose that formal repetition gives?

Roger Fry showed that the imagination could be satisfied if it replaced the logical repetition of the first half with an equivalent, but not an imitation, of the second. The effect of repetition was given

without the repetition itself. A block of formal design at one corner of his rug would be balanced by a corresponding mass of plain colour at the other, and so on. In his best rugs the eye took as great a pleasure in imagining, say, the expected fringe at the other end as in finding it there. Once you looked for harmony and no longer confused harmony with exact repetition, these rugs ceased to seem unfinished or absurd. After all, poetry ever suggests more than it says; and one of the joys of music is that it cannot be tied down to a precise meaning. It may suggest different things in different moods.

The next development was cubism, which originated in 1908 at Paris. As the name implies, it sought exclusively abstract pattern. Roger Fry defined its aim to be 'a purely abstract



PABLO PICASSO BY HIMSELF

Pablo Picasso, a most versatile painter, was born at Malaga in 1881. For many years he was a foremost figure in the Cubist school, but later he developed a realism much more conformable to the natural appearance of things.

Photo, W. F. Mansell (copyright, Syndicat artistique)

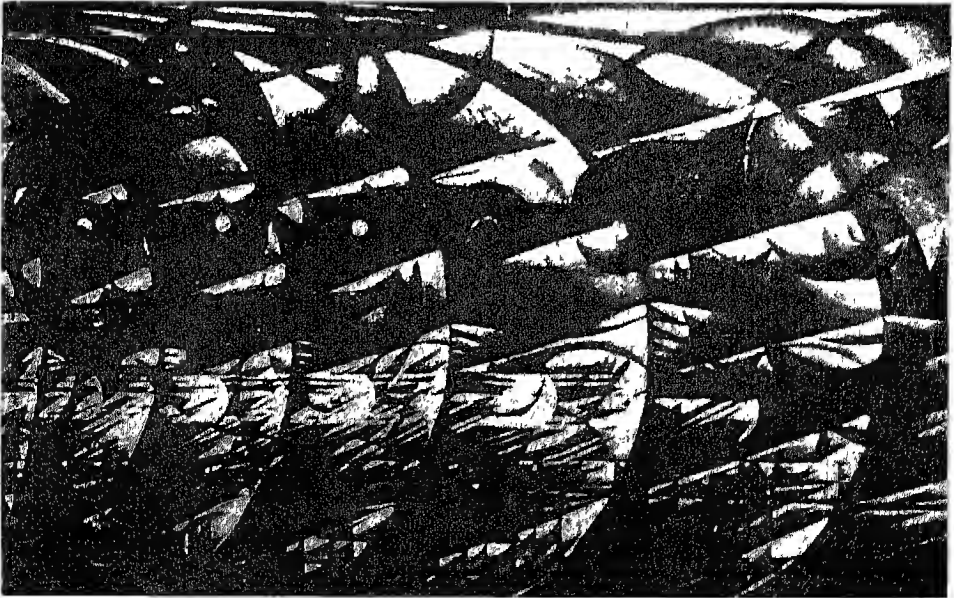
language of form—a visual music.’ The imitation of nature was desired no longer. The new motto was : do not copy what you see but paint what you feel, for the feeling is what excites the imagination of the onlooker. This theory had its obvious dangers. A man’s feelings are his own and, left to themselves, without the discipline given by respect for the object that excites them, may run riot into absurdity. An abstract theory may be as enslaving to the imagination as the concrete theory that art should copy things. The cube or crystal was supposed to be the abstract primitive form, and circles to be cubes that had lost their edges! Thus the ‘primitive form’ of a man, on this theory, is six cubes; four for his limbs, and two for his trunk and his head. Each cube, too, is a pattern in itself, and there is no denying that a beautiful pattern may be made on this convention, once the desire to imitate nature takes second place.

Pablo Picasso was the leader of the new school, and the most puzzling things in the new pictures were their titles. Instead of explaining, they puzzled you to

find out where the subject was concealed in the apparent tangle of planes and cubes in front of you. The subject had ceased to be important in order that it might be suggested (in the abstract) instead of rendered. Picasso, as Frank Rutter has explained, also presented his subjects in fragments, put together from different points of view. Early Egyptian reliefs do the same when they show us the face in profile, the eye full face, the shoulders square to the spectator and the legs, once more, seen from the side (see pages 501-2).

Obviously, such work lent itself to wild extravagance, but since our concern is with the real and not the vagary, we will pass over expressionism, futurism, attempts to paint the passage of time by drawing ten arms to represent a single arm in motion, which the Italian Marinetti, an excitable journalist, proclaimed in noisy articles and lectures about the world. Let us be content to note the increasing interest in machinery, the tone of violence, which were affecting the arts before the war.

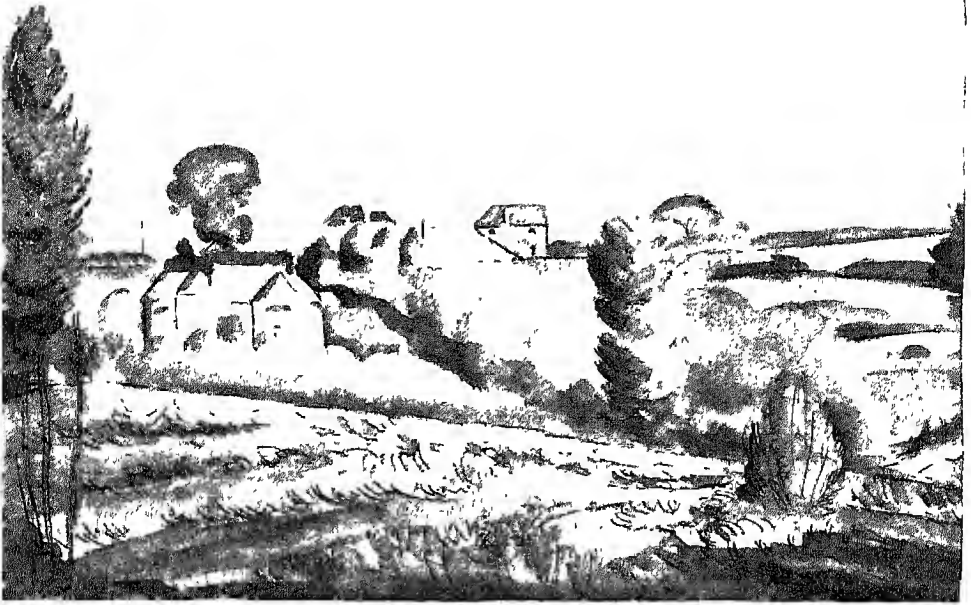
The best, perhaps, of these weird compositions is Giacomo Balla’s picture



FUTURISM IN ITALY : SPECIMEN OF BALLA'S ART

Signor Giacomo Balla, with the ambitious aim of giving concrete expression to an abstract subject, selected for this picture the theme of Centrifugal Force. A striking effect is produced by the ranging of gold and silver spheres, shooting off sparks in apparently rapid revolution against a background of sapphire blue. Unlike some futurist creations, this study is less likely to amuse than to impress.

From Frank Rutter, 'Evolution in Modern Art,' Geo. Harrap & Co., Ltd



Bernard Meninsky was born in 1891 and studied in London at the Slade School and in Paris. Simplicity is the keynote of his water colours, and in his landscapes, of which this Landscape in Hampshire is a characteristic example, he exhibits the modern tendency to eliminate irrelevant details and to concentrate on the main essentials of composition and the production of brilliance of tone and light, employing flat washes of colour strengthened by heavier pen and brush work.

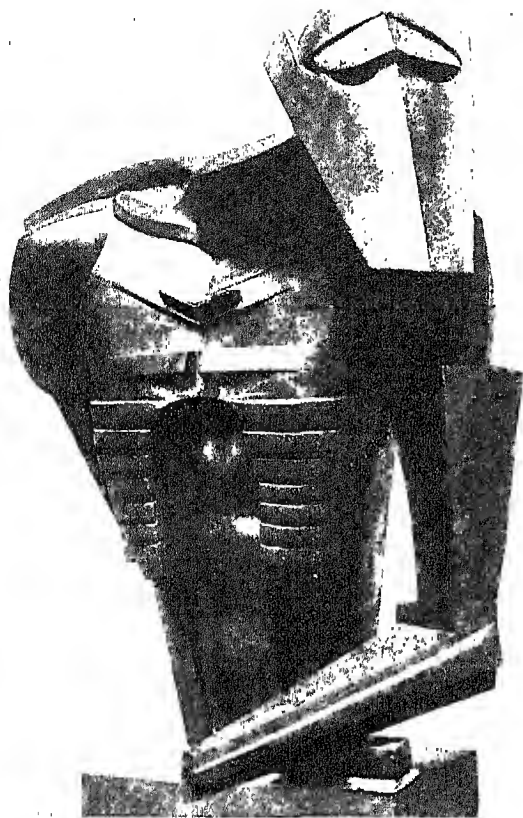
Courtesy of the Artist



The art of wood engraving has revived considerably during the twentieth century, and since the Great War has become increasingly important. Leading figures of this revival are the brothers Paul and John Nash, born respectively in 1889 and 1893. The dramatic quality of John Nash's work is exemplified in this Interior of a Wood, in which he has created an extraordinary impression of depth by his clever use of light and shade and skilful balance of masses.

MODERN TENDENCIES IN PAINTING AND WOOD ENGRAVING

Courtesy of the Artist and 'The Studio'



MACHINERY AS THE MASTER OF MAN

Violent controversy has raged round the work of Jacob Epstein (born 1880), but that it is the expression of a genius peculiarly sensitive to current ideas is conceded. The Rock Drill, executed in 1913, is a highly imaginative representation in the vorticist manner of the relentless mechanical spirit in modern life.

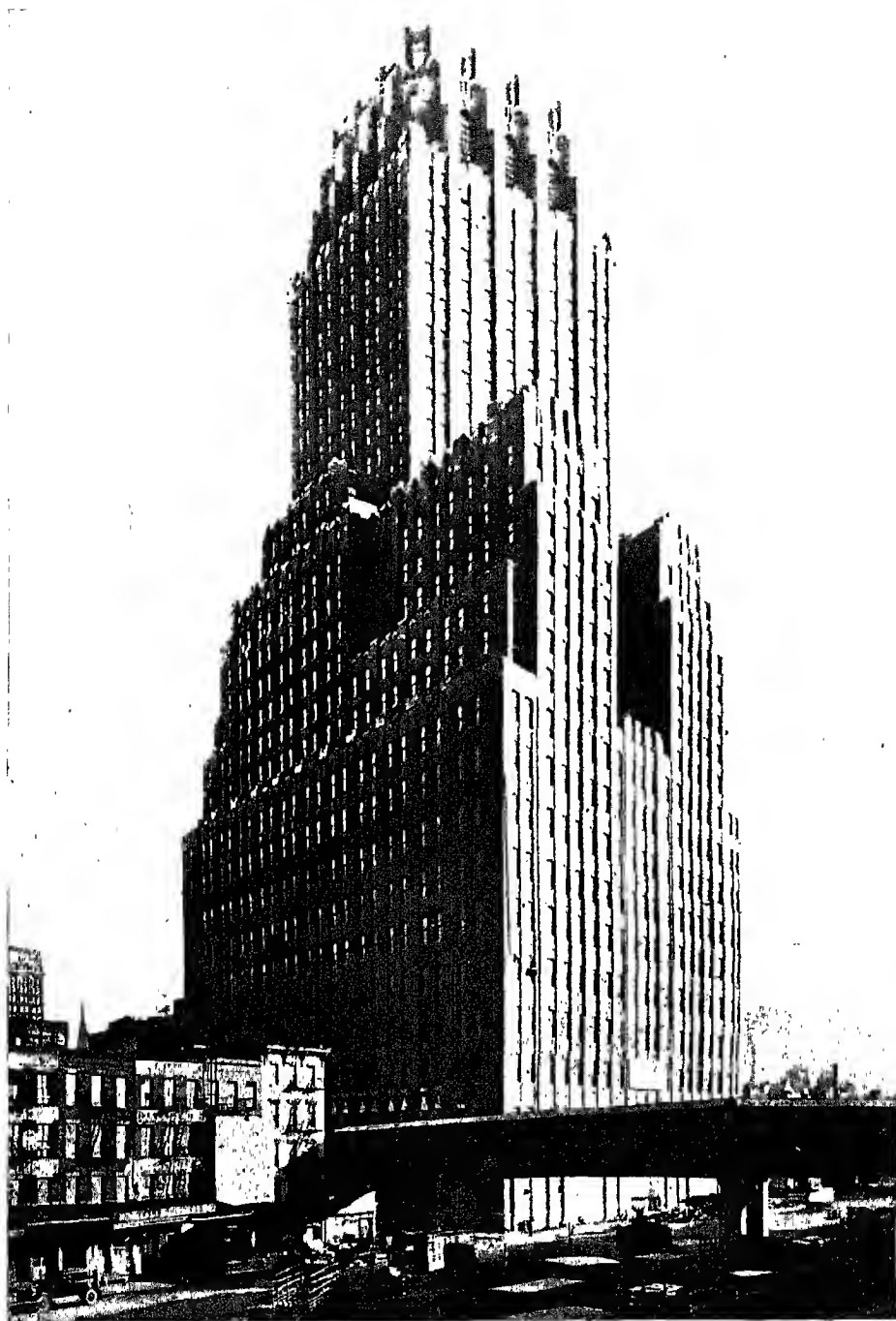
Photo, Paul Lamb; courtesy of the Artist

of Centrifugal Force, and note the prophecy of Wyndham Lewis' composition of planes and wedges entitled *Plan of Campaign*. This was exhibited in the June of 1914 in London. Painting was the plaything of ideas, and yet there was an (as yet) undefined aspect of modern life for which the best artists were seeking an expression. The vorticism of Wyndham Lewis, a variation on cubism and futurism, was more than a reaction, as was clear when it found its appropriate subject in the mechanism of modern weapons and in vast armies of human automata at drill or on the march. Now this mechanism, this discipline, is also prominent in industrial life. We have the mass production of

useful things and the mass production of ideas in newspapers, which manufacture the opinions that they profess to represent. This is not the whole of modern life, but it is its most prominent and perhaps, for the individual, its most oppressive trait.

The modern principle of private judgement in the course of time produces a riot of private opinion, counter-balanced by mass suggestion from above, and it was only natural that art, in one of its phases, should mirror this. The symbol for a mechanical, crowded, struggling, and therefore regimented age was produced by Jacob Epstein in his monster called the Rock Drill. It might have been called the War God, the Spirit of Machinery, the Human Brute, the Voice of the Crowd, the Frenzy of a Mob or the Hysteria of a Newspaper, Moloch, Brute Wealth, or Brute Poverty. It was an idol, representing any or all of these blind and callous forces: the tyranny of materialism and its products.

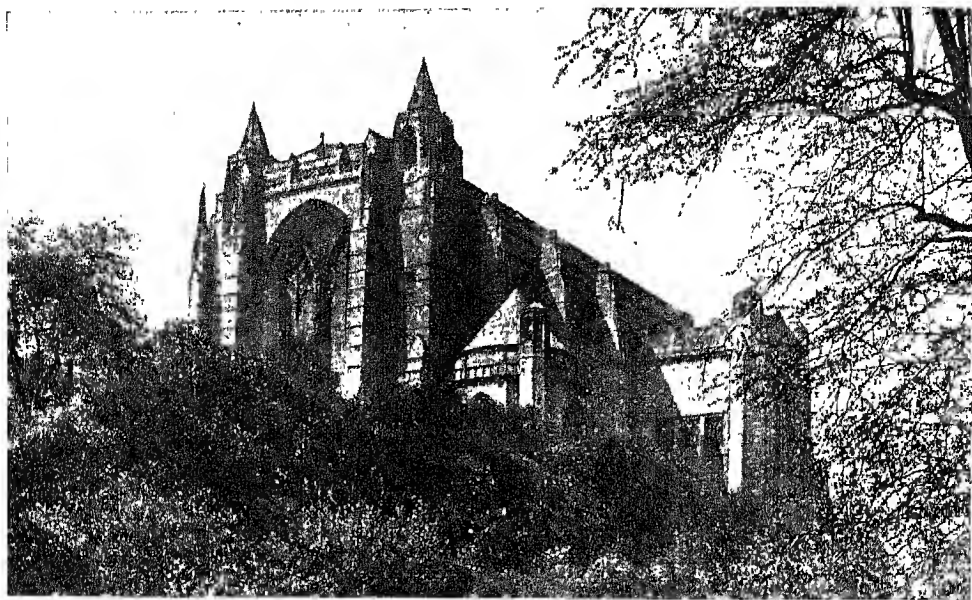
It was the same force that G. F. Watts had tried to symbolise in his painting of the Minotaur. But Watts had accepted the form and name of a dead Greek monster, and thus did not probe our consciences half so keenly as Epstein's image, which any modern blast furnace might have spawned. Idols, when works of art, are hideous without being ugly. The ugliness is in the evil spirit that they represent. The beauty is in the definition which controls the design, in the imaginative truthfulness of the line that circumscribes it. The Rock Drill fascinates but appalls. Yet, since the imagination is happier in its loves than in its hatreds, great art is usually most concerned with the Vision of Good, and is turning aside from its main path when it concentrates, as at times it must, upon the Vision of Evil.



ARCHITECTURE'S ADAPTATION TO MODERN BUSINESS NEEDS

Revolutionary changes are being effected in modern architecture by the use of concrete and steel in construction and the exactitude with which these materials can be adapted to calculation and theory. A first result has been the American skyscraper, with façades so developed that all the windows admit the maximum of air and sunlight. A superb example is the Telephone Building in New York, notable for the zoning principle of construction in the upper half.

Photo, Central News



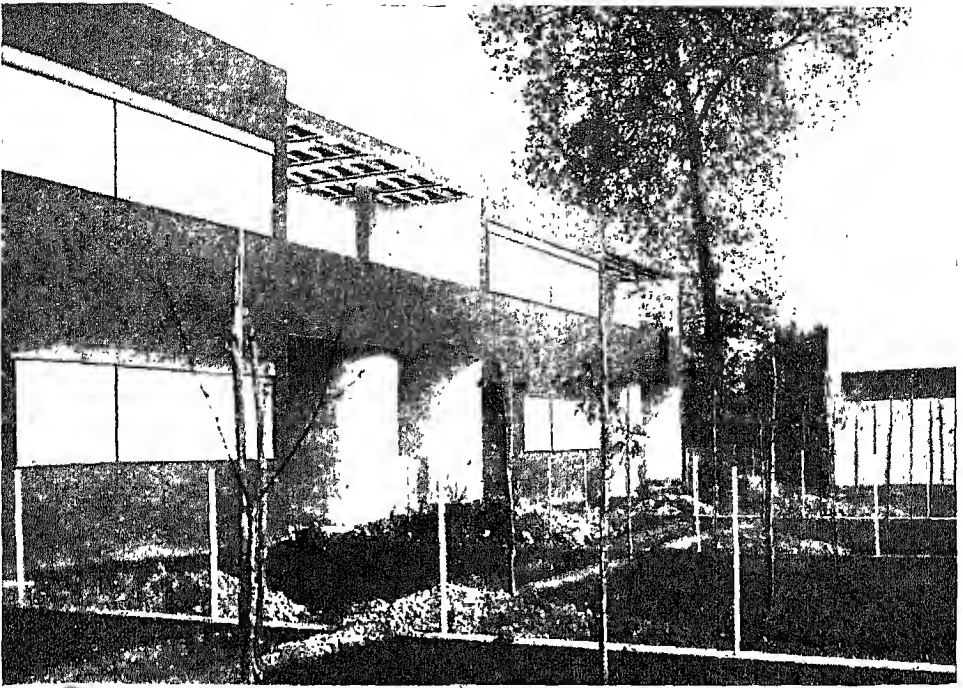
Modernist interpretation of Gothic principles in ecclesiastical architecture has found masterly expression in Liverpool Cathedral, designed by Sir G. G. Scott, the foundation stone of which was laid in 1894. Situated on S. James's Mount, the red sandstone mass of the eastward portion already built dominates the city, and, when completed, the vast church, with the majestic central tower that is a principal feature of the structure, will be a landmark visible for many miles.



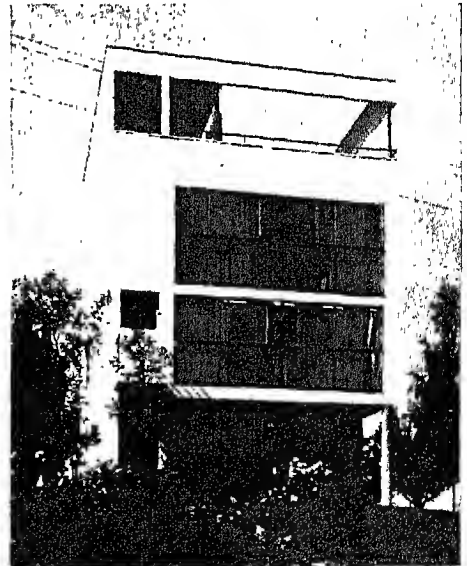
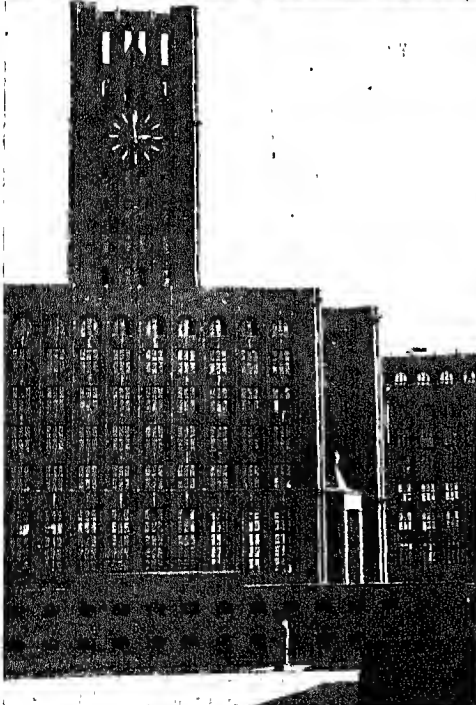
In England the American type of skyscraper has not yet found acceptance, but concrete and steel are being used ever more freely in construction, especially for commercial buildings. In its combination of strength and lightness, Adelaide House, at the city end of London Bridge, has an aesthetic aim of its own, the slight vertical fining of the pylons at the four corners of its rectangular mass being a particularly happy concession, derived from Greek models.

THE NEW SPIRIT IN ECCLESIASTICAL AND COMMERCIAL BUILDINGS

Photos, Donald McLeish and (top) Stewart Bale



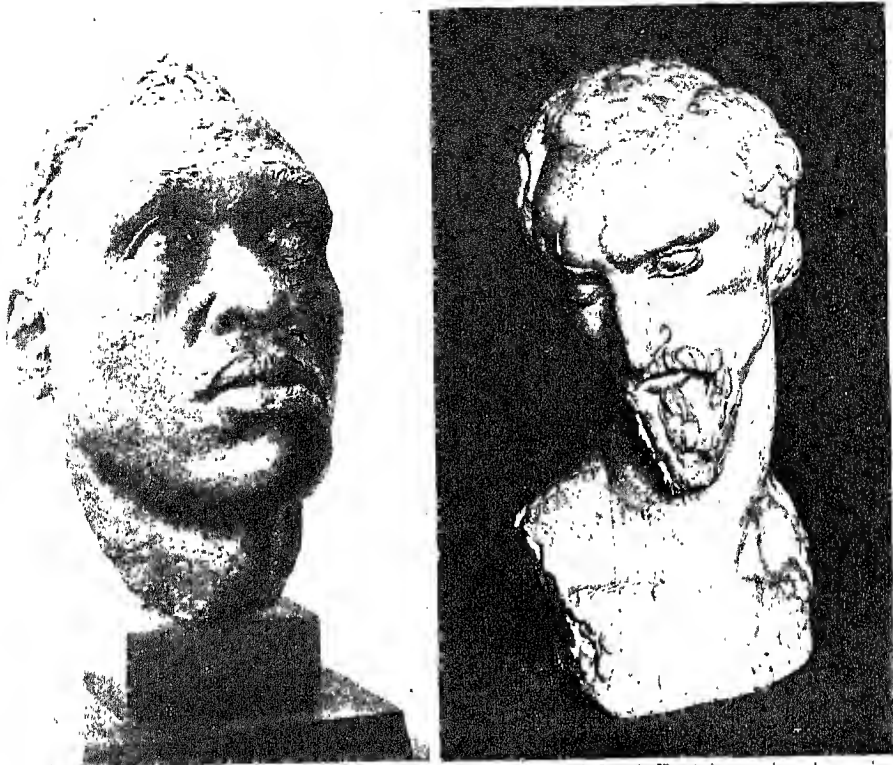
Large scale experiments by Le Corbusier at Bordeaux and elsewhere have proved the utility, economy and aesthetic value of blocks of maisonettes built on the 'honeycomb' principle. Each of these two-storeyed dwellings has its terrace garden.



Modernist architecture starts from the proposition that new conditions require the discarding of old methods and old styles, and for industrial and domestic purposes alike advocates mass production building, of standardised materials, adapted to new requirements of hygiene, and with a beauty to be derived from utility and from uniformity subordinated to the general effect of the whole. Examples of the two types are the business offices (left) of a firm of publishers in Berlin and (right) a private residence at Stuttgart by Le Corbusier.

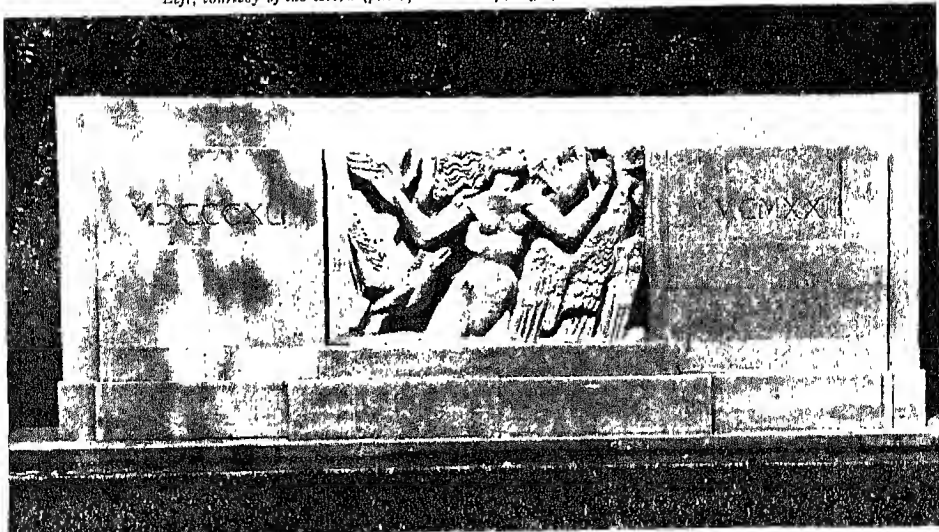
MASS PRODUCTION BUILDINGS FOR THE OFFICE AND THE HOME

Photos (left) E. O. Hoppé; (right and top) courtesy of Fredk. Etchells



In his second period, beginning about 1917 with his bronze 'Christ,' Jacob Epstein produced a series of bronze portraits remarkable for their power of design and intensity of characterisation, as seen in this bust of Paul Robeson, the negro singer, done in 1928. Ivan Meštrović's self-portrait (right) is equally interesting in its strength of modelling and interpretation of the sombre Slav temperament.

Left, courtesy of the Artist (photo, Paul Lath); right, National Gallery, Millbank



Abyssinian, Egyptian and archaic Greek art greatly influenced Jacob Epstein in his symbolic sculpture, of which this Rima panel—suggested by, not a portrait of, Rima—on the memorial to W. H. Hudson in Hyde Park is the example that aroused the widest and most animated discussion. By general consent it demonstrates the sculptor's exceptional skill in direct stone cutting and his feeling for form, and it is admirably representative of his entire originality of thought and design.

PORTRAITURE AND SYMBOLISM OF TWO MODERNIST SCULPTORS

Photo, Topical Press Agency

Another sculptor much discussed was Meštrović, in whose work both abstract design and dramatic treatment are conspicuous. No one who visited the exhibition of his sculptures at South Kensington can forget his bust of Rodin, with its mighty hand at rest, or the dramatic relief in which a winged head whispered the awful word of Annunciation to Mary.

In the Great War machinery, masses in movement, human beings reduced to the level of obedient automata, provided abundant subjects for painters like Lewis and Nevinson. The German excuse that 'war is war' was the counterpart of that 'peaceful' motto, 'business is business.' Whether on the battle-fields, or in the Black Country at home, painted by Edward Wadsworth, the new technique and manner of painting were suited to its theme. Luckily four years do not last for ever, but the legacy of the experiments that had gone before remains with the artists of to-day.

Ideas and theories are not the main inspiration of the present. The respect for simplification remains: the flat manner, the definite vision, the contempt alike for sentimental or vague treatment in paint. The water colour and the wood-cut have returned to favour, to lend their separate means to express the same attitude in art. It is grave, flat, decorative, simplified, though one modernist, Charles Ginner, loves detail, and rejoices, much more than photographically, in the separate bricks of a house or cogs in a machine. The general effect, however, is clean, clear, proportioned. All this may seem a restriction to the prose of life; but only the few who study prose know how rich prose may be in beauty. There are few more satisfying architectural sights than the ancient brick masonry of Rome.

Truth of view and simplification of design can touch, also, the heights of grandeur and of pathos. Is not a peasant a simple and moving figure? Pathetic in his loneliness, fine in his humility, he is an eternal type of human strength and human weakness. To look at modern life with something of his tragic share and personal understanding of nature is the aim of many artists.

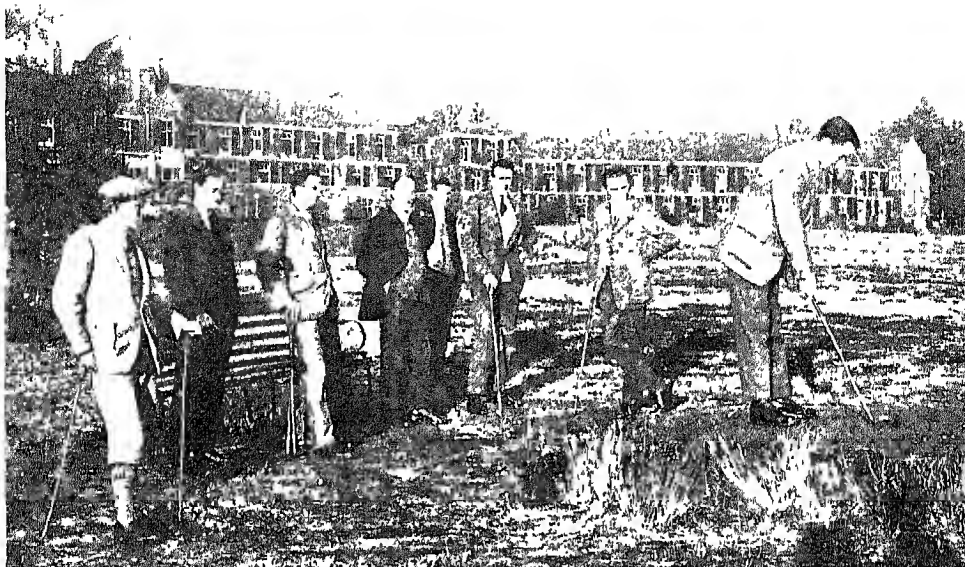
If the modernism of to-day can be summed up in a sentence, we may call it the end of the romantic movement, the return of classicism. Form, once more, is being set above feeling, but we are still in the transition: a tendency rather than a movement is to be observed.



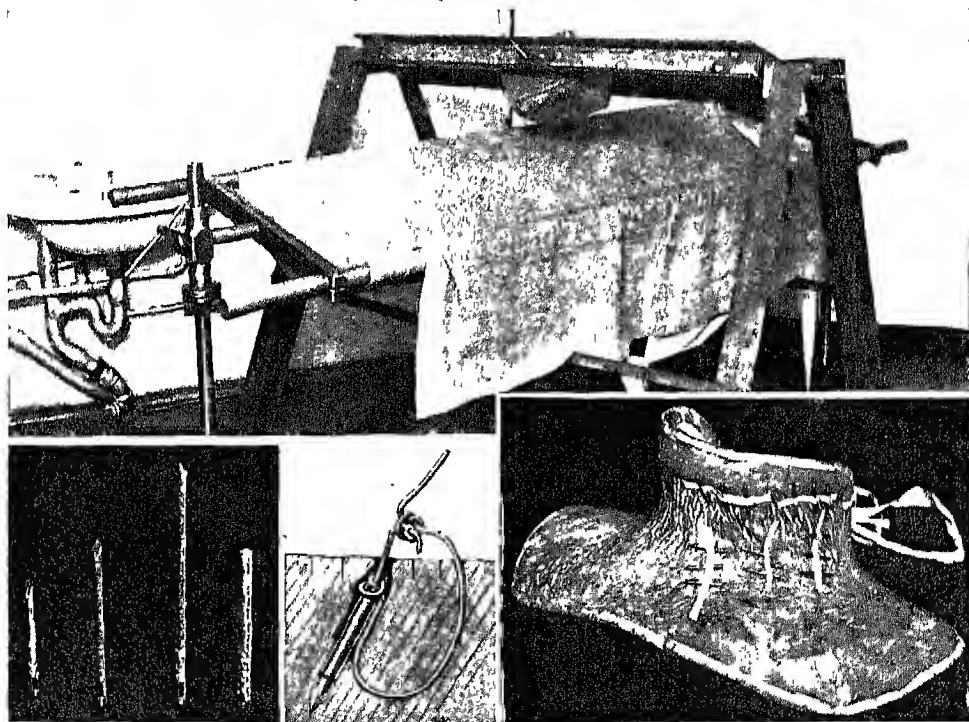
IVAN MESTROVIC'S 'ANNUNCIATION'

Ivan Meštrović, Yugo-Slav sculptor of international reputation, was born in 1883 and studied in Vienna, where a collected exhibition of his work was held in 1907. Imagination and religious feeling are expressed in much of his work, of which this dramatic and individual 'Annunciation' is representative.

Courtesy of the Artist; photo, E. O. Hoppe



Fresh air, sunlight, good food, rest and carefully regulated exercise are the methods of treatment for consumption in sanatoria, of which King Edward VII Sanatorium at Midhurst is a notably good example. Exercise includes graded outdoor labour and outdoor recreation, of which putting and croquet are particularly suitable forms.



For distance irradiation a so-called 'bomb' of lead containing a gramme of radium is used at Westminster Hospital. The lead box can be tilted in any direction. The stretcher can be inclined, or moved up or down or horizontally, so that the cone of gamma rays can be brought to bear on any part of the body. Platinum needles (left—actual size) containing radium are used for insertion in cancerous growths, being secured in place by the stitch shown in the diagram, centre. For surface irradiation of the lymphatic glands in the neck when invaded by cancer a 'collar' (bottom right) is used.

MODERN TREATMENT OF TWO COMMON DISEASES

Courtesy of E. Roch Carling, F.R.C.S., and Stanford Cade, F.R.C.S.

PUBLIC HEALTH: A RECORD OF MEDICAL PROGRESS

How the Development of Scientific Method and the Sanitary Idea produced the New Hygiene of the Twentieth Century

By SIR GEORGE NEWMAN K.C.B. M.D.

Chief Medical Officer to the Ministry of Health, Author of *An Outline of the Practice of Preventive Medicine*

THE progress made by the science and art of medicine since the dawn of civilization, especially as it concerns the community, is one of the great stories of mankind. It is a romance connected with adventure, war and love; it is interwoven inseparably with social life and the evolution of human custom; and it is intimately associated with man's moral aspirations. Frazer would trace its origin to 'primitive instinct' and the impulse to magic; Wordsworth would follow it back to 'primal sympathy.' Both would be right. The instinct of self-preservation, the natural prompting of the maternal passion and the sympathetic longing to save one's friends from suffering or premature death have played a predominant part in the growth of both preventive and curative medicine.

There has been one other factor always at work—observation. To stem the advance of disease, whether of the individual or the community, men have tried first one thing and then another, observing their effects, and thus have arrived empirically at certain tentative conclusions, and it is upon these practical tests that they have built up an immense superstructure of experience. Magic, the intervention of the gods, astrology, trial by ordeal, the king's touch, and an innumerable series of drugs and simples, of blood letting, potions and plasters, make up the art of medicine over 6,000 years. Dark ages, if you will, but always with a ray of light from which sprang hope in the human breast.

We know that surgery was practised in Egypt in the Middle Kingdom (see page 562) and that domestic medicine chests existed even earlier. Indeed, the first

physician of whom we have record (Imhotep or Iemhetep) flourished in the Old Kingdom. In Assyria there was the Hammurabi Code (see page 575), some of whose enactments deal in detail with the medical treatment of wounds, abscesses, fractures, and diseases of the eye.

Greek medicine seems almost modern compared with the more distant history of medical art in Egypt and Assyria. Yet it also recorded the growth

of this art for periods much earlier than its own. *Historicity of Greek Medicine*

The practice of hygiene, baths, life in the open air, the therapeutic value of sunlight, physical exercise and dietary were all matters of daily routine to the Greek of the fifth century before Christ. The sun temples of Cos and Epidaurus and the health principles of Hippocrates (see page 1475) and Diocles belong to well recorded Greek history as much as the epidemics of the Peloponnesian War described by Thucydides.

It is evident, therefore, that the art of medicine was neither primitive nor rude in the golden age of ancient Greece, but advanced and constructive. What happened to it all? The answer to this question is twofold. First, it became fixed as a doctrine not only in the Hippocratic writings but also in the Galenical books (see page 2079). Not until the Renaissance in the sixteenth century did anyone arise to question the infallibility of Galen, or wish to alter or add to his voluminous records. And, secondly, Greek medicine became disseminated over the world partly in the form of the Hippocratic writings, and partly as Galen's interpretation of them.

One channel of propagation was directed from Greece to its great colony Magna Graccia in Sicily and southern Italy, and thus to Salerno and Padua and Leyden and Edinburgh; a second stream flowed through the Byzantine Empire and ended in wider distribution when Constantinople fell in 1453; the third and much the largest current was carried in the wake of the heretical Nestorian church first to Edessa in Mesopotamia, and then with the evicted Nestorians to Jundeshapur (see page 2313) in Persia. The Nestorian centre at Edessa became also a hospital and medical centre, a city of monasteries and learning, and Jundeshapur became the famous school of Mahomedan medicine.

When Edessa was captured in 638 by the Arabs, they became acquainted for the first time with Greek medicine, and in due course set to work

Arab dissemination of Greek learning to translate Hippocrates and Galen into Arabic.

But in the meantime the Arabs had conquered the Orient. It was this mighty invasion which proved the means of introducing Greek medicine in Arabic guise to western Europe. Thus came Hippocrates and Galen to Córdoba, to Montpellier, to Paris (see Chapter 97 and page 3297).

Whether Galen's writings reached Britain during the last half of the 400 years of Roman occupation we do not know. But we know that his doctrines spread through western Europe, and in the Middle Ages we can find the beginnings of a practice, though not a science, of medicine in Europe and certainly in Britain. Two influences were at work. First, there was the effect of pestilence, and, secondly, the social efforts to stem it.

In Chapter 122 it is shown how the establishment of leper hospitals was the beginning of the present hospital system and of our method of notification and isolation; and how the prevalence of plague in the hovels of the poor demonstrated the necessity of sanitation. The first sanitary Act was passed by the English parliament at Cambridge in 1388; it was followed by quarantine laws, by the appointment of scavengers, by sanitary watchmen (now called sanitary

inspectors) and by a system of penalties for the concealment of infected persons.

It was not, however, until the Restoration, after the Commonwealth, that practical sanitation and hygiene began to take its modern form, and not until 1720 did the science of the public health begin.

Among the obvious results of leprosy and plague in western Europe were their social effects. It is strange how readily men forget that epidemic disease changes the destiny of nations. Now as social changes have often been the result of disease, so they have provided the basis, sometimes even the directive influence, of the ways by which men have endeavoured to control disease. Looking back in the history of England, we can see the social origins of some of the chief means of the modern treatment of disease. Domesday Book was a statistical survey of the whole country in 1085-1086, its villages, its acres and their usage, its industries, its population and their social standing; it thus proved the forerunner of the census returns, the primary data on which the whole of the vital and mortal statistics are founded. The monasteries and the guilds were institutions out of which grew dispensaries and the insurance system. They sprang out of the social aspirations of the people.

Nor was it the doctors who alone led the way. Nothing is more instructive in the evolution of medicine than the contributions made to it by non-medical men. Plato and Aristotle gave the trend to the medicine of the

Greeks; Roger Bacon, the Franciscan monk, introduced the methods of science into England in the thirteenth century; the botanists who wrote the old herbals classified and illustrated the plants used in the manufacture of drugs; Galileo led the Paduan physiologists to study the part which physics and mechanics play in man's body; some of the great painters, Albrecht Dürer and Leonardo da Vinci, advanced human anatomy by their drawings of the nude; John Graunt, the Cornhill linen draper, had a hobby to collect the records of death, and thus initiated the bills of mortality; Bentham, a philosopher, Chadwick, a poor law

inspector, Robert Owen, a 'socialist,' Lord Shaftesbury, a peer, Florence Nightingale, a nurse, Röntgen, a physicist, and Pasteur, a chemist, are illustrious examples of non-medical workers who in the nineteenth century took an eminent part in the advance of medicine.

The Great Divide between the old medicine and the new, the event which seemed almost to close the Arabic epoch, was the publication in 1543 of the famous book of anatomy by Andreas Vesalius (see pages 3338 and 3828). Vesalius ended Galenical doctrine by going back not to authority or the written word, but to nature herself. He dissected the human body, he observed its form and function and recorded what he found in his wonderful volume, the *Fabrica Humani Corporis*. 'This book,' said Sir Michael Foster, 'is the beginning not only of modern anatomy, but of modern physiology.' Its publication at Basel in 1543 ended the long reign of fourteen centuries of precedent and authority. It introduced a new method of medical science and engendered a new spirit.

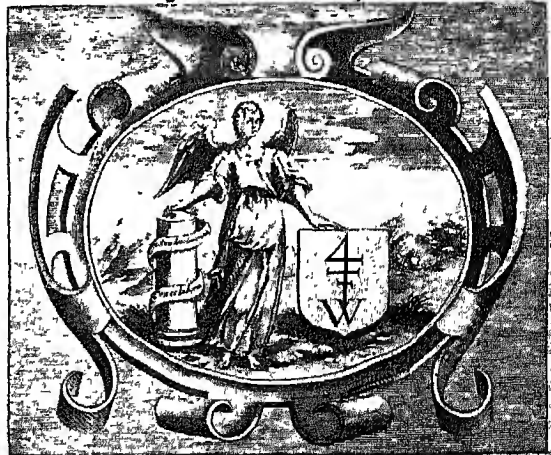
It also brought students of all nations to the old university at Padua. Professors and students stimulated each other, and Padua had its glorious century from 1543 to 1643. Vesalius was followed by Fracastoro (see page 3114), Fabricius and Galileo, and these four men—an anatomist, a practitioner, a physiologist and a physicist—spread its doctrines and its spirit all through Europe. Among its students was William Harvey (see page 3829), the Englishman, the discoverer of the circulation of the blood, and group of men who, though not as famous as Harvey, are of historical interest because they carried the torch from Padua to Leyden, where, in due course, Boerhaave lighted

the torches of his disciples, and thus spread the light in Europe and America.

Harvey's discovery of the circulation of the blood was announced by him at the College of Physicians in London in 1616, and published in his book *De Motu Cordis* at Frankfurt in 1628. This event was so important that we must understand it. When Harvey went to Padua and sat at the feet of old Fabricius in 1600 much was known about the heart and the blood. He listened to Fabricius, he then studied the matter for himself in man and animals; he considered the structure of the circulatory system and its purpose, and he 'weighed' (to use his own term) the physical factors affecting it. Briefly, this is what he found.

EXERCITATIO
ANATOMICA DE
MOTU CORDIS ET SAN-
GVINIS IN ANIMALI-

BVS,
GVILIELMI HARVEI ANGLI,
Medici Regii, & Professoris Anatomie in Col-
legio Medicorum Londinensi.



FRANCOFVRTI, Sumptibus GVILIELMI FITZERI

ANNO M. DC. XXVIII.

TITLE PAGE TO HARVEY'S TREATISE

The discoveries of William Harvey (1578-1657), who studied at Padua under Fabricius, constitute a landmark in medical history. His views on the movements of the heart and blood were first put forward in 1616 and his *Treatise on the Circulation of the Blood* was published in 1628.

British Museum

He first showed the nature and purpose of the heart beat, that the heart undergoes a contraction and a constriction, and forces all its contained blood into the arteries, the right ventricle into the pulmonary artery to the lungs and the left into the great artery (aorta) to the body, and no blood passes through the intervening wall. Secondly, he found that the blood coursing through the body was passing from the heart in the arteries and 'climbing back' to the heart in the veins by the support of their valves, 'a motion, as it were, in a circle.' Thirdly, he saw that though the blood undergoes changes in the lung (the lesser circulation) and in the body tissues (the great circulation), it is one and the same blood. That is Harvey's threefold discovery.

Its effect was amazing. For his mode of procedure vindicated for ever the experimental method. Here was an end of 'spirits' and 'vapours'; here was the beginning of a new science of physiology. Its influence on the whole of medicine grew slowly. The great practitioners of the seventeenth century, led by Sydenham, excelled their predecessors in the obser-

vation of disease, and there was immense growth in general science and understanding. Yet the progress of Harveyian physiology halted. It was the eighteenth century that applied the new knowledge and began the modern epoch.

For in the eighteenth century there was an astounding expansion of man's mind and a readier application of existing knowledge to the betterment of man's estate. Everywhere things were happening. Men were thinking, and the needs of the time made them think socially. All this led to a critical spirit of inquiry, of rationalism and of systematic classification, and this spirit permeated medicine and created a new incentive to the application of the science and art of medicine to the problems of the time.

There were three kinds of medical advance in the eighteenth century, and the first was due principally to a remarkable group of medical practitioners in England. **Advances in the Eighteenth Century** They were restricted in their sphere by the limitations of medical education and by the sanitary circumstances of the time, but by their individual labours they achieved great things for the progress of medical observation and treatment. One of the most prosperous of the eminent London physicians of the day was Dr. Richard Mead. He was not only a fashionable doctor who succeeded to the practices of Lower and Radcliffe, but he was one of the first medical men called by the government to advise the nation on the prevention of disease.

The subject was plague, which had appeared at Marseilles, and which it was feared would spread to England. He wrote therefore a *Short Discourse concerning Pestilential Contagion* (1720), which passed through seven editions in twelve months. He discussed the origin and nature of plague, as then understood, the causes of its spread (alleged to be diseased persons, infected goods and a corrupt state of the atmosphere) and the steps to be taken against it. Mead recommended the appointment of a Council of Health, of 'searchers' for those dead of plague, and of special physicians to attend the sick. He advocated certification of



DR. RICHARD MEAD

In 1714 the English physician Richard Mead (1673-1754) succeeded John Radcliffe as recognized head of the medical profession. He played an important rôle in the prevention of disease, his *Discourse on plague* appearing in 1720.

From Pettigrew, 'Medical Portrait Gallery'



A MEDICAL RECORDER

The direct observations and notes made by William Heberden (1710-1801), distinguished London physician and classical scholar, were incorporated in his valuable *History and Cure of Disease*, which was published in 1802.

From Pettigrew, 'Medical Portrait Gallery'

affected persons, prompt isolation of the sick and the disinfection of persons and houses. The expenditure incurred ought, he thought, to be borne by the public.

The diseases which tested the skill of medical practice at the time were small-pox, influenza, puerperal sepsis, scarlet fever, typhus and plague, and Mead's suggestions were accepted as applicable in a general way to them all. These conditions, it was urged, must first be diagnosed and differentiated, and then treated or prevented.

Mead's *Discourse* may be accounted one of the first elementary publications of the new preventive medicine, and there soon followed in his train a substantial group of English medical men who introduced scientific methods of inquiry for the first time into their ordinary medical practice. One of the earlier of them was Heberden, an accomplished and scholarly man. He was a prolific note-taker who left behind valuable commentaries on the *History and Cure of Disease*, which owed little to books and nothing to authority, but consisted of his own close observations of disease in the living patient, and this without any

of the modern instruments of precision or diagnostic tests. Heberden agreed with Dr. Cullen of Edinburgh that there are more false facts in medicine than false theories, and he set himself to check and record facts regarding chicken-pox, measles, night blindness, epidemical cold (probably influenza), the pulse in disease, and so on.

The famous Quaker doctor, John Fothergill, was of the same type though more austere and ascetic. His practice, like his circle of friends, was large, and out of both was born his remarkable influence in England and America. Like Heberden he published his clinical records of practice. He was a botanist, a meteorologist and a philanthropist, and related these subjects to his study of disease. Diet, fresh air and exercise were leading features in his treatment. He gave only a second place to blood letting, purging and blistering, and relied mainly on stimulation of vital processes and the resistance of nature. One of his chief contributions to medicine was his study of epidemic sore throat in 1747, a form of malignant scarlet fever.

Many medical practitioners living in the provinces were not behind their



DR. JOHN HUXHAM

Of great importance in eighteenth-century medical progress were the researches into epidemic diseases made by John Huxham (1694-1768), the seasonal colic and palsy so common in Devon receiving his special attention.

From Pettigrew, 'Medical Portrait Gallery'

London colleagues in investigational clinical medicine. Dr. Huxham of Totnes, a pupil of Boerhaave, kept clinical notes on epidemic disorders for thirty years. One of the subjects which arrested his attention was the seasonal colic and palsy which was suffered by his patients who drank the Devonshire cider. In the winter of 1724-1725 Huxham found it so common 'that there was scarce a family amongst the lower rank of people that had it not,' and he sometimes saw five or six persons lying ill of it in one house. He was the first to describe this condition in 1739, though he did not know the cause of it. A similar malady was observed by Cadwaladr in 1745 in the West Indies in drinkers of rum distilled through leaden pipes, and in 1757 by Tronchin, the talented physician of Geneva, in drinkers of lead-sweetened wine.

Ten years later this mystery was cleared up by Dr. (afterwards Sir) George Baker, a near neighbour of Huxham in Devonshire, though he did not practise there, who rose to become president of the

College of Physicians. His Essay concerning the Cause of the Endemical Colic of Devonshire showed that the disease was connected with large pieces of lead used in the vats and cider presses, and he extracted lead from the cider itself. His work, though it concerned a small and circumscribed problem, was so logical, accurate and inductive that it afforded a new method of investigation into the contamination of food supplies, which has been pursued by innumerable workers ever since. It opened a new chapter in the book of preventive medicine.

There was practising in Chester from 1767 to 1793 a highly observant medical man named John Haygarth. Several years after starting practice he began his epidemiological inquiries into smallpox and typhus, and an enumeration of the inhabitants of Chester in order to check the incidence and progress of disease, and to introduce a system of notification. His description of typhus fever was one of the first and most reliable, and this led him to formulate the nature and condi-



EVIDENCE OF A NEW HUMANITY: THE LONDON HOSPITAL IN 1753

Advancing medical knowledge throughout the first half of the eighteenth century was accompanied by a philanthropic spirit which showed itself in the foundation of hospitals and infirmaries. A small infirmary established in Featherstone Street, Whitechapel, in 1740, was the beginning of the London Hospital, later transferred to Prescott Street, Goodman's Fields, where it can be seen in this painting by William Bellers. It was again moved in 1757.

tions of febrile infections. He took two villages for comparative purposes and made observations upon differential symptoms, proportions of population infected and insusceptible, the channels, the dosage and conditions of infection, the effect of ventilation and uncleanliness, distance over which infection is carried, and, above all, the length of the 'latent,' or, as we now call it, incubation period. Upon these data he established the necessity for isolation (1775) and drafted rules for the institution of fever hospitals.

Thus Haygarth was one of the first to distinguish different kinds of fever by their periods of incubation and to suggest their notification, and he was the first to insist on isolation, a practice begun at Chester in 1783 and followed at Manchester in 1796, and subsequently at Liverpool, Edinburgh, Newcastle, Dublin and other towns, in the institution of what were then described as 'houses of recovery.' Haygarth also made a valuable study of acute rheumatism, and described rheumatic nodules in 1780.

A third example was Thomas Percival, of Manchester. He was physician to the infirmary, and had a large practice. He wrote on hospital regulation, medical ethics, smallpox, measles and bills of mortality. As a mathematician, he devised

First of the methods for taking the **Factory Laws** census and for accurate death and sickness returns. He was one of the pioneers in the reform of the factory system as concerned with sickness and accidents, excessive hours of labour, unwholesome conditions and insanitation. Sir Robert Peel acknowledged his indebtedness to Percival and his medical associates in the preparation of the Health and Morals of Apprentices Act of 1802, the first of that great stream of factory laws which revolutionised industry.

A second feature in the progress of medicine in the eighteenth century was the communal attack on the medical disabilities of the time. It is true to say that the period was an unhealthy one. The death rate in England was as high as 28 per 1,000 in 1701-10; from 1720-1740 it rose to 35, and it was not until 1788-90 that it had fallen again to 28. A hundred

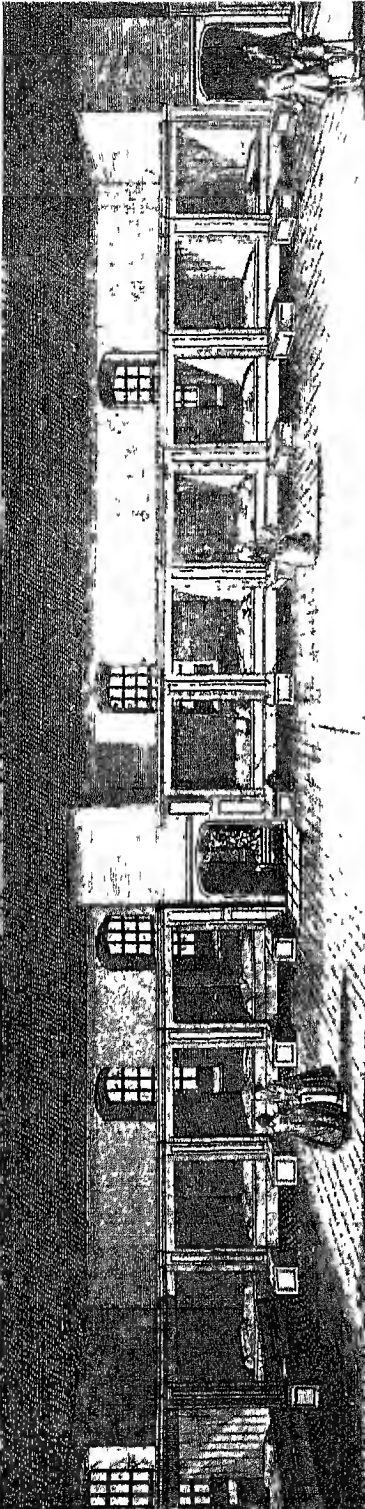
years later it had fallen to 18, and in 1926 it was less than 12. In London from 1720-40 the death rate reached the figure of 37 per 1,000. These high death rates were due to influenza, smallpox and typhus, to alcoholic excess, to maternal and infant mortality, and to the immigration into overcrowded London. Typhus was localised and epidemic, but influenza and smallpox were almost endemic. 'The real grand destroyer' was gin drinking. Smollett said that:

Such a shameful degree of profligacy prevailed that the retailers of this poisonous compound [gin] set up painted boards in public inviting people to be drunk for the small expense of one penny, assuring them that they might be dead drunk for twopence, and have straw for nothing; they accordingly provided cellars and places strewn with straw, to which they conveyed those wretches who were overwhelmed with intoxication; in these dismal caverns they lay until they had recovered some use of their faculties, and then they had recourse to the same mischievous potion.

The mortality of women in childbirth and of the newly born infants was also excessive in the years 1720-40. Childbirth was indeed a risky adventure for mother and child. The maternal death rate before the establishment of maternity institutions in 1740 was extremely high, and though it was much improved thereafter it often reached 20 in the 1,000. It is now rarely above 5 per 1,000. Fifty per cent. of all the children born died before they were five, and from 1730-49 in London 74 per cent. died under five years of age.

These serious national problems, the prevalence of disease in epidemic form, the excessive drinking and the high mortality among mothers and children, led to the organization of public relief. It did not come suddenly, but it grew in volume and wisdom. It grew also in response to demands from the people and as a result of the religious movement of Methodism and what came to be called the 'new humanity.' A spirit of sympathy and compassion spread through England, and associated as it was with the advance of medical knowledge it proved the means of introducing important sanitary measures.

Hospitals and dispensaries were established. The Westminster, Guy's, St.



VIEW OF A WARD IN GUY'S HOSPITAL IN THE YEAR OF ITS OPENING

On January 6, 1725, Guy's Hospital was first opened 'for the relief by physic or surgery of sick persons whose illnesses were of so severe a nature as to lead them to be deemed incurable.' This view of one of the wards in 1725 affords an instructive contrast to the Lister surgical ward shown in page 5054. Besides building and endowing the hospital named after himself, Guy was a generous benefactor of S. Thomas's

British Museum

George's, the London and the Middlesex Hospitals were all founded in the first half of the century; maternity homes and lying-in hospitals were started, followed by dispensaries for the 'infant poor,' for general sickness and for inoculation against smallpox. 'In the nurture and management of infants as well as in the treatment of lying-in women,' wrote Dr. Lettsom, 'the reformation hath equalled that of the smallpox; by these two circumstances alone incredible numbers have been rescued from the grave.' The reduction in maternal mortality was largely due to improved methods in midwifery introduced by Smellie, William Hunter and Charles White, of Manchester.

Another far-reaching reform was that of medical education. Edinburgh, the principal medical school of that day, inaugurated its medical faculty in 1726, and during the century the medical schools in London were greatly improved. Their evolution proceeded by four steps. First, there was from ancient times a system of apprenticeship, by which the medical practitioner had a pupil or apprentice to whom he taught the art and mystery of his craft. Then, when hospitals were established the physician or surgeon took his apprentice to 'walk the wards.' This began at St. Bartholomew's in the seventeenth century, and the practice was adopted at the London Hospital in 1741, and at Edinburgh even before that. The London hospitals made informal arrangements with their medical staffs that their private apprentices should take a course of hospital work under their supervision. Thus the private apprenticeship system became something of a communal apprenticeship system in the hospitals. The medical staff became a medical faculty, and the apprentices became clerks and dressers in the wards.

The third step was the holding of private classes in chemistry, anatomy and pathology, and of clinical classes at the hospital. Before John Hunter, surgery was well taught only in Paris, and before the Monros began at Edinburgh anatomy flourished only on the Continent. Private instruction, such as that of Cheselden

Reform of the
medical schools

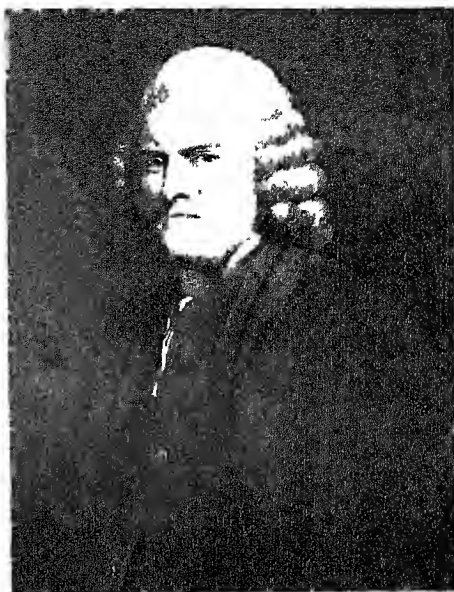
and Pott in surgery, Smellie's school of obstetrics, the Hunters' school of anatomy and surgery, Baillie's classes in morbid anatomy and Harrison and Blizard's clinical class at the London Hospital, was the beginning of modern ways.

The fourth stage, which overlapped with these proprietary classes, was the establishment of chairs in the universities. At the opening of the century, chairs of anatomy were founded at Edinburgh, Cambridge, Glasgow and Oxford, and chairs in clinical medicine at Edinburgh and Oxford. The London medical schools grew up in the eighteenth century alongside the great new hospitals that had just been built.

Lastly, there was medical reform in the army and navy, owing to the work of Sir John Pringle and Dr. James Lind.

Pringle was 'physician in general' to the forces during the campaigns of 1742-48 in Flanders, Germany and elsewhere, and gave the first impetus to the study of this subject by the publication in 1752 of his classic book on *Diseases in the Army*. At the beginning of the century fleet after fleet had been decimated by scurvy, for the treatment of which Huxham had recommended vegetable diet and cider. In 1751 Dr. Lind investigated and described the disease, and advised the use of lemon juice and the adoption of personal hygiene, which was followed by Captain Cook in his voyage round the world and by Sir Gilbert Blane in Lord Rodney's fleet. Their methods abolished this immemorial disease from the mercantile marine and the British navy. The advance in hygiene in the army and navy reacted favourably on the civil population; never before or since have they learned so much essential hygiene from the services.

The eighteenth century was thus a time of improved medical practice and of its wider extension to solve the problems of communal ill health. But there was a third kind of advance. Alongside this expansion in the art of medicine there went a concurrent development of its science. A hundred years after the death of Harvey (1657) a great book on the *Elements of Physiology* was written by Albrecht von



SIR JOHN PRINGLE

Valuable reforms in military medicine were accomplished by Sir John Pringle (1707-1782) whose book on *Diseases in the Army* is classic. He became president of the Royal Society in 1772.

Portrait by Sir Joshua Reynolds

By permission of the Royal Society

Haller, of Berne, an old pupil of Boerhaave at Leyden. It was the beginning of the systematic and integrative study of physiology from a modern standpoint. It was a summary, a review and a forecast, so masterly as to make famous the year of its publication.

But Haller was not alone. Four years later came the founder of modern pathology, Morgagni; six years after him came Buffon and his great compilation on natural history; and there followed Cullen's *Classification of Diseases*, Rutherford's discovery of nitrogen, Priestley and Lavoisier on oxygen, and the zenith of the all-pervading influence of John Hunter. It was Hunter whose genius enlightened all departments of medicine and surgery, for he taught men to see that the foundations of preventive medicine are an understanding of and a reliance upon the laws of nature, as they concern all forms and conditions of life; an appreciation of the capacity of the physiological functioning of the human body and its inherent powers of repair; and a knowledge of the cause and circumstance of disease.



JOHN HUNTER : PATHOLOGIST AND SURGEON

The creation and development of English pathology was the work of John Hunter (1728-1793), whose investigations and observations influenced all branches of medicine, surgery and anatomy. He began private practice in Golden Square, London, in 1763. This portrait is by Sir Joshua Reynolds.

By permission of the Royal College of Surgeons

Not as an anatomist nor yet as a surgeon, but as a naturalist, who was a co-ordinator and explorer of the unity of the human body, John Hunter must rank as one of the fathers and founders of modern preventive medicine.

At the beginning of the nineteenth century came the dawn of the modern renaissance, and we pass into a golden age of medicine. Probably it is true to say that no period of human history shows anything comparable to the advance of medicine since 1798. Yet all that had gone before had been a preparation for it and had led up to it. This modern period was an age of inquiry, both individual and collective. The workers of the eighteenth century had stimulated inquiry, those of the nineteenth joined the chase and prosecuted it with a vigour, a persistence and an inquisitiveness which had never

been excelled. No branch of knowledge seemed to escape this passion for research—biology, chemistry, physics, social conditions. The future was evidently going to be very different from the past and men desired to find their way about the new world which was arising around them. They must henceforth find the facts. Adam Smith, Jeremy Bentham and Malthus had directed their attention to the social life of the people as it was affected by industry, by forms of government and by increase of population. Meanwhile, immense possibilities seemed to be emerging from the discoveries of science, and political emancipation was certain.

Out of the astonishing collection of new facts wrested from nature, verified or applied in practice, we have space here only to refer to six generalisations. The first is vaccination. Somewhere about 1768 Edward Jenner, a country practitioner in Gloucestershire, heard a young woman say that she could

not have smallpox 'for I have had cowpox.' Jenner talked to his fellow practitioners and neighbours, and in 1780 he told one of them of the idea growing in his mind that cowpox might prove the antidote to smallpox. Early in 1788 he married, and in 1789 he made the great venture and inoculated his own child, a few months old, with swinepox matter, and subsequently on three occasions with smallpox virus. None of these smallpox infections gave the child the disease. Seven years later (1796) he inoculated James Phipps, aged eight and a half years, with cowpox matter from the hand of a dairy woman who had contracted cowpox from her master's cows, and three months later he inoculated the child with matter from a smallpox case. Phipps did not get the disease. Jenner continued his observations, and two years

later published his immortal *Inquiry into the Causes and Effects of the Variolae Vaccinae*, a Disease discovered in some of the Western Counties of England, particularly Gloucestershire, and known as the Cowpox (1798). Jenner was now a famous man with a unique reputé spreading all through the world, and his vaccination was a universal method for preventing smallpox.

Then, as now, there were critics and opponents. In 1811 he wrote to Lettson that 'the chief impediments to its general adoption are our newspapers and some of our magazines. Whenever a case of what is called failure starts up, in it goes to a newspaper, with all the exaggeration with which envy and malice can garnish it.' Even educated people, he complained, 'decide upon the merits of vaccine inoculation unaided by a competent knowledge of the matter.'

Jenner described cowpox as he saw it in nature, and he contributed to its differentiation from other similar outbreaks among animals. He showed that cowpox was inoculable upon man, and could be transferred from man to man. Above all, he proved that vaccinia in man protected against smallpox. One may say that none of these three discoveries was new, and, speaking generally, that is true. Different persons, medical, veterinary or lay, had made observations on these points. What Jenner did was to bring them together and prove their validity. It has been thus in all the great discoveries. But, in point of fact, Jenner did much more than introduce vaccination for smallpox. He opened the gates of immunity. We now have many forms of vaccination for various diseases. We now see that immunity is one of the great high roads to the conquest of disease. There are many

gaps in knowledge and practice to fill in, but the method is proved.

In the same year that Jenner published his *Inquiry* an apothecary at Penzance parted with his apprentice, a youth named Humphry Davy, because the lad went to be assistant to Dr. Beddoes who had established a 'pneumatic institute' at Clifton for the treatment of disease by medicated gases. In experimenting with various gases Davy discovered the comforting effect of breathing nitrous oxide. More than forty years afterwards Jackson and Morton of Massachusetts used ether as an anaesthetic in dentistry, and Warren tried it in a surgical operation in October, 1846, and Simpson of Edinburgh in midwifery in January, 1847. Recognizing the shortcomings of ether for this purpose,



FOUNDER OF VACCINATION

The efforts of Dr. Edward Jenner (1749-1823) to discover a preventive of smallpox were rewarded by the success of his first inoculation with cowpox in 1796. Further successful experiments followed and, despite some inevitable opposition, made rapid headway. This portrait is by James Northcote, R.A.

National Portrait Gallery, London

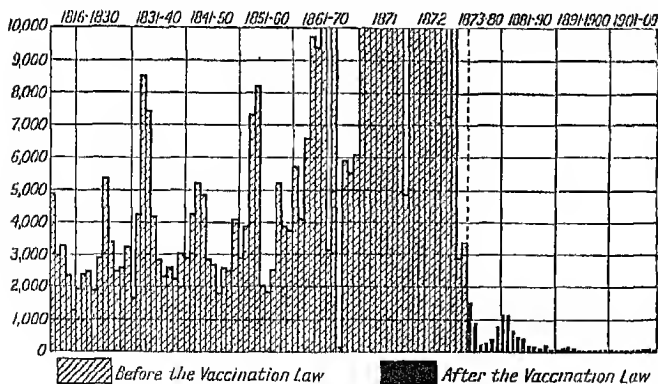


THE COWPOX TRAGEDY

— Scene No. 101 —

VACCINATION ATTACKED IN A CRUIKSHANK CARTOON

Furious controversy long raged between the supporters and opponents of vaccination regarding the wisdom of its practice, and arguments were forthcoming to prove that inoculation with cowpox did not always secure its object of rendering a person immune from smallpox, and might even infect him with other diseases. Reaction against the process is indicated in a cartoon by George Cruikshank, of which the central scene representing the funeral of 'Vaccina' is shown here.



VACCINATION JUSTIFIED BY STATISTICS

Convincing proof of the efficacy of vaccination in reducing smallpox mortality is supplied by this chart of the results in the German Empire. Whereas in 1871 and 1872 the mortality exceeded 10,000, it dropped to about 1,500 in 1875 when compulsory inoculation was introduced, and later fell almost to zero.

After Osler, 'The Evolution of Modern Medicine'

Simpson experimented on himself with chloroform, and in November, 1847, he established its anaesthetic power. The discovery of anaesthesia ended the terrible ordeal of agony hitherto associated with surgical operations and made possible an enormous expansion of surgical treatment. It made surgery 'safe,' it abolished pain, and it provided for long and careful operations on all parts of the body.

The third of the great medical 'discoveries' which marked the nineteenth

century, was that of the cause of infective disease, the new science of bacteriology. Its founders were Louis Pasteur and Robert Koch. The former was the son of a country tanner in Jura, who became professor at the Sorbonne and director of the Institut Pasteur in Paris, and the latter was a young German doctor in Wollstein who spent his leisure with his microscope and became a director in the Imperial Health Department in Berlin and professor of bacteriology in the university. Pasteur showed that fermentation was due not to chemical changes but to bacteria, that spontaneous generation did not occur, that each infective disease had a specific organism as its cause, and that many such diseases were curable by antitoxins and preventable by inoculation of their vaccines. Koch introduced the method of staining bacterial films with aniline dyes and of cultivating bacteria on solid media. He discovered the causal organisms of tuberculosis (1882) and cholera (1883).

From 1870 to 1905 there followed that wonderful succession of discoveries which



SIR JAMES SIMPSON

While professor of medicine and midwifery at Edinburgh University Sir James Young Simpson (1811-70) experimented with chloroform in obstetrical practice and surgical operations, and introduced the art of practical anaesthesia.



PASTEUR, FOUNDER OF BACTERIOLOGY

Louis Pasteur (1822-95) was France's most brilliant biological chemist. His researches into isomerism led him to study the processes of fermentation, and resulted in the discovery of the bacterial origin of various diseases and his preparation of vaccines for their prevention and antitoxins for their cure.

have distinguished for all time the age in which we live, and which gave us the bacillus of leprosy (Hansen), the gonococcus (Neisser), the typhoid bacillus (Eberth-Gaffky), the micrococci of suppuration (Ogston), the bacilli of tuberculosis (Koch), of cholera (Koch), of diphtheria (Klebs-Löffler), of tetanus (Nicolai) and of plague (Kitasato and Yersin), all between 1871 and 1894. In 1880 Laveran announced the discovery of the plasmodium malariae, and eighteen years later Ross demonstrated its transmission by the mosquito, which had been suggested by Manson. In 1878 came the trypanosoma of Lewis, to be followed by various members of its genus; in 1883 Friedlander described the pneumococcus, and four years later Weichselbaum the meningococcus and Bruce the micrococcus of

Malta fever. The last to be named in this brief review is Schaudinn's spirochæta of syphilis, discovered in 1905. These then were the principal authentic representatives of that unseen world the existence of which had been long foretold, even from the days of Fracastoro of Padua.

But the discovery of the disease-producing bacillus was only the first step in establishing a trinity of knowledge. What did the bacillus do? And what could restrain, prevent or control its activity? In 1888 came the brilliant work of Roux and Yersin, in which they demonstrated by filtration the existence of the toxins of the bacillus of diphtheria and thus opened a new chapter in pathology. Only the year before Mechnikov had shown the bactericidal powers of the leucocytic cells of the healthy body and had introduced his famous theory of phagocytosis, and two years later (1890) Behring and Kitasato completed the case by producing the antitoxin of diphtheria—the final step in the establishment of



A GREAT RUSSIAN BIOLOGIST

By his study of the white blood corpuscles Iliya Mechnikov (1845-1916) established the theory of phagocytosis. He became widely known by his advocacy of sour milk as a preventive of intestinal putrefaction, to which he attributed senility

Photo, E. N. A.



GERMANY'S GREATEST BACTERIOLOGIST

Robert Koch (1843-1910) ranks with Pasteur as the founder of bacteriology. His new contribution to science was the growth of micro-organisms in a pure culture outside the body and inoculation with the cultures. Koch isolated the comma bacillus of cholera and the tubercle bacillus, and was the discoverer of tuberculin. This drawing is from life.

the far-reaching conception that though the healthy body of man may be subject to the bacillus and suffer its toxic effect, it is able of its own cells and fluids to provide defence, in the form of the destruction and assimilation of the invading bacillus. Thus was built our modern conception of the bacillus as agent, of the toxin as product of the bacillus, of the antitoxin as the body's defence against the effects of the toxin.

Further research by many workers has added knowledge in regard to the antitoxins of tetanus, of cholera, of typhoid; has detected the filterable viruses; has given us the beginning of an understanding of the place of opsonins, agglutinins and precipitins in the body defences; and has provided us with autogenous and other vaccines. Lastly, in 1910, Paul Ehrlich announced his discovery of

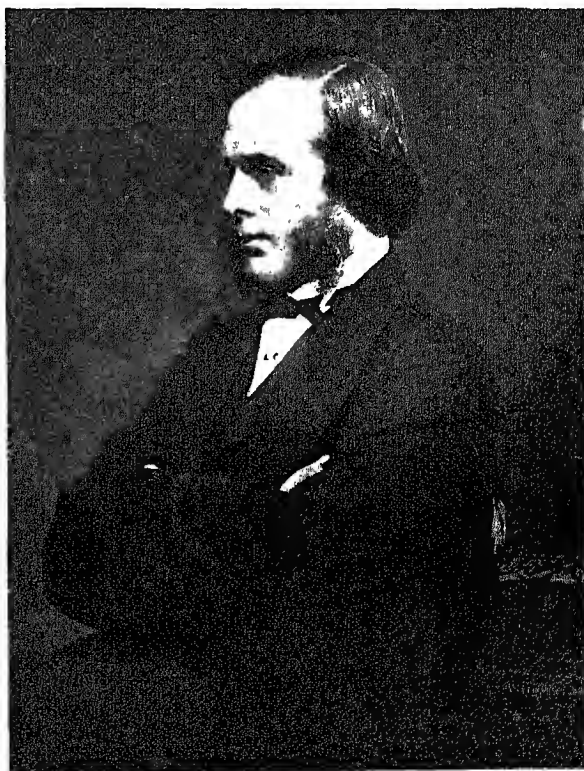
'606,' the arsenical compound salvarsan, which is able to destroy in the living body the parasite of syphilis. Thus was the illuminating chapter in the new learning respecting the agents of infection and the body's natural defences begun in 1857 by one chemist and so far completed in 1910 by another—a significant illustration of the interdependence of the sciences in the pursuit of truth.

It was these discoveries which put into our hands for the first time a new power over disease. It is true that certain diseases such as tuberculosis and smallpox were being controlled before their bacterial cause was known, but it was the work of the bacteriologists that gave mankind a fuller understanding of the ways and means of combating infective disease. Until the actual cause of anthrax, of typhoid fever, of cholera, of lockjaw, of malaria or of syphilis was proved, we were working in the dark. We did not know the exact point to attack. Most of all was this true of the septic diseases which carried off such a large percentage of surgical cases. It was in 1865 that the discoveries of Pasteur were first applied by Lister, then a surgeon in Glasgow, to the treatment of surgical wounds, and in 1867 he was able to announce the first principles and methods of the antiseptic system of surgery which ended the long reign of hospital blood poisoning. This is what he said in August of that year :

The two large wards in which most of my cases of accidents and of operation are treated were amongst the unhealthiest in the whole surgical division of the Glasgow Royal Infirmary. Since the antiseptic system has been brought into full operation, and wounds and abscesses no longer poison the atmosphere with putrid exhalations, my wards, though in other respects under precisely the same circumstances as before, have completely changed their character,

so that during the past nine months not a single instance of pyaemia, hospital gangrene or erysipelas has occurred.

Subsequently in Edinburgh and in London Lord Lister perfected his technique and proved the soundness of his views, so that his method of preventing the contamination of the wound with septic germs, or of destroying such germs as had gained access to the wound, became applicable in all surgical work and in all parts of the body. 'The investigations of Pasteur,' Lister wrote in 1875, 'long since made me a convert to the Germ Theory, and it was on the basis of that theory that I founded the antiseptic treatment of wounds in surgery.' It is impossible to measure the beneficent results of the antiseptic principle in surgery; it revolutionised, of course, the whole art of surgery, but it did more than



PIONEER OF ANTISEPTIC SURGERY

Joseph Lister (1827–1912), created Baron Lister in 1897, was professor of surgery at Glasgow, Edinburgh and King's College, London. Following Pasteur's discoveries he revolutionised surgery by developing his antiseptic technique, relying chiefly on carbolic acid. Portrait taken at Glasgow in 1868.

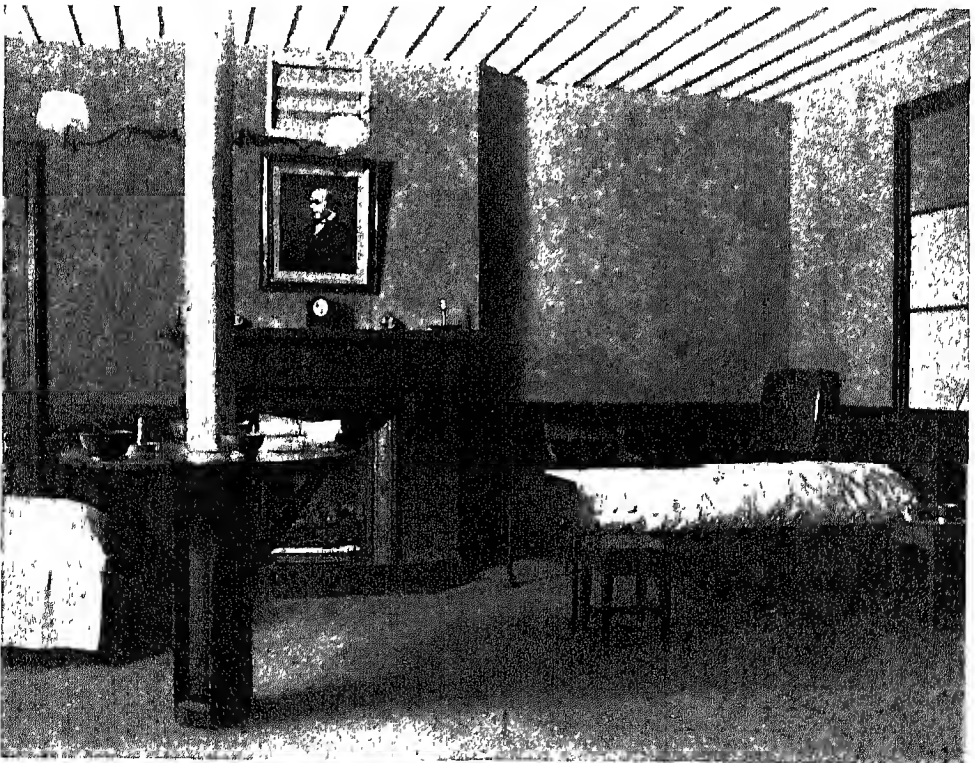
Courtesy of Wellcome Historical Medical Museum

that; it revolutionised the attitude of men's minds to all forms of infection. After Lister it was clear that man could control infection by other means than escaping it. Neither Hunter nor Lister would have claimed as surgeons to be fathers of preventive medicine, but such, in fact, they proved to be.

The nineteenth century was thus a period of extraordinary advance in the true apprehension of the fundamentals of public health and preventive medicine. Here are four great generalisations the validity of which was then established, vaccination, anaesthesia, the cause of infective diseases, and antiseptic surgery. It is the communal application of these advances that has characterised recent times. Out of them was born what Chadwick called 'the sanitary idea.' In

a word, men saw that the answer to the problems of communal disease was an attack, directed by the growing knowledge of medical science, upon the origins and circumstances of such disease, and this meant sanitation. The alarm caused by pestilence, the advance of medical knowledge and the demands of an enfranchised people moved Parliament to appoint various commissions of inquiry and to pass a series of sanitary acts which have led to the improvement of the external environment of the people.

Two royal commissions, one in 1843 and the second in 1869, produced reports which constitute a sort of Domesday Book of the conditions of life in England at that time and resulted in the appointment of medical officers of health and the imposition of health duties upon the local



WHERE LISTER ELABORATED HIS ANTISEPTIC TECHNIQUE

Before Pasteur's elucidation of the germ theory of putrefaction an appalling number of surgical operations were followed by pyaemia due to contamination of wounds by virulent bacteria. Lister's supreme service to mankind was the perfecting of the antiseptic technique, entailing sterilisation of all instruments and dressings and everything brought into contact with actual wounds. This photograph shows a section of a reconstruction of the ward in Glasgow Royal Infirmary where Lister, between 1861 and 1869, did much of his more important work.

Courtesy of Wellcome Historical Medical Museum

authorities established in 1835. The need for co-ordination of such officers and duties led to the establishment of a central board of health, now called the Ministry of Health. Anyone who reads the preamble of the report of the commission of 1869 on the history of the sanitary laws will find that they are concerned with nuisances and their removal, sewerage and drains, sewage treatment, the paving, lighting and cleansing of streets, artisans' dwellings, smoke abatement, local government and the burial of the dead. The great Public Health Act of 1875 brought together and extended these enactments. That act and the Elementary Education Act of 1870 were forms of germinal legislation which bore fruit in a single generation and have impressed all subsequent health enactments.

The Public Health Act dealt, broadly, with the environment, but it is significant to observe that the succeeding acts have

become steadily more personal in objective. **Enlarged scope of preventive medicine** With the twentieth

century came a series of laws dealing with mothers and children; with midwives and nursing; with notification of birth, employment of children, school meals; with the medical inspection and treatment of school children, physically and mentally defective children and the Children Act itself; with the protection of food; with pensions for the aged, for widows and orphans, and the insurance of the adolescent and adult against sickness, accident and unemployment; with dentistry; with infectious diseases and fever hospitals; with tuberculosis, mental deficiency, lunacy, blindness and venereal disease; with factories and workshops and the industrial welfare of the workers.

What does this change in the centre of gravity really mean? It means that there is a larger understanding of the purpose of preventive medicine, both in the object and the methods of securing the health of the people. It is no longer a question of stamping out pestilence or of providing a sanitary environment. The purpose of preventive medicine is how to develop and fortify the physique of the individual and thus increase the capacity and powers of resistance of the

individual and the community; to prevent or remove the causes and conditions of disease or its propagation; to postpone the event of death and thus prolong the span of man's life.

The basis of the public health must always be a sanitary environment; but the new hygiene seeks to develop the innate capacities of man, physical, mental and moral; it aims at the avoidance of disharmony and disease in its early stages, in order to escape its later results in the body. Let us see what its modern programme is.

First, wise human nurture, an effective maternity service, infant welfare and child hygiene are designed to build a healthy race. Secondly,

good housing, a pure and abundant water supply, **Programme of the new Hygiene** drainage and sewerage,

the reduction of nuisances and the abatement of smoke, a wholesome and sufficient food supply and industrial hygiene are to create a sanitary environment. Thirdly, the provision of sound nutrition, life in the open air, exercise and rest, vaccines and antitoxic sera are to establish immunity and a resistant body. Fourthly, the control of epidemics, the destruction of infective agents, the isolation and treatment of infectious persons, disinfection, quarantine, avoidance of cough-spray or expectoration are methods of reducing mass infection. Lastly, adequate and sufficient medical practice for the sick and disabled of all ages and classes, clinics, dispensaries, hospitals, sanatoria and a health insurance system are medical services for the early diagnosis and treatment of disease.

Modern physiology has laid emphasis upon the body itself as the key to the position. The essential contributor to disease was formerly believed to be an unhealthy environment; then came the period of the dominance of the infecting germ, and later the susceptibility of the non-resistant body. Hence the modern ideal is a resistant body, the maintenance of its harmonious functioning in relation to nature and to human society. Progress would thus seem to depend more upon social and moral evolution than upon the advance of sanitary science, more upon

wisdom than knowledge, more upon public opinion than legislative enactment, more upon sociology and biology than medical intervention. Yet all are necessary, for the art of preventive medicine is social in structure and medical in inspiration.

These general principles have found remarkable illustration in the concentrated attack in modern times upon certain strongholds of disease. The disappearance of plague after 1666 is still something of a mystery, but that of typhus fever two hundred years later was probably due to the better housing of the people, higher wages, cheaper and more nutritious food and a more adequate medical service. 'The disappearance of typhus and relapsing fevers,' says Creighton, 'is one of the most certain and most striking facts in our epidemiology.' But it is not alone. Cholera has vanished and typhoid fever shown an astonishing decline. Both im-

provements followed on a pure water supply and segregation of infected persons.

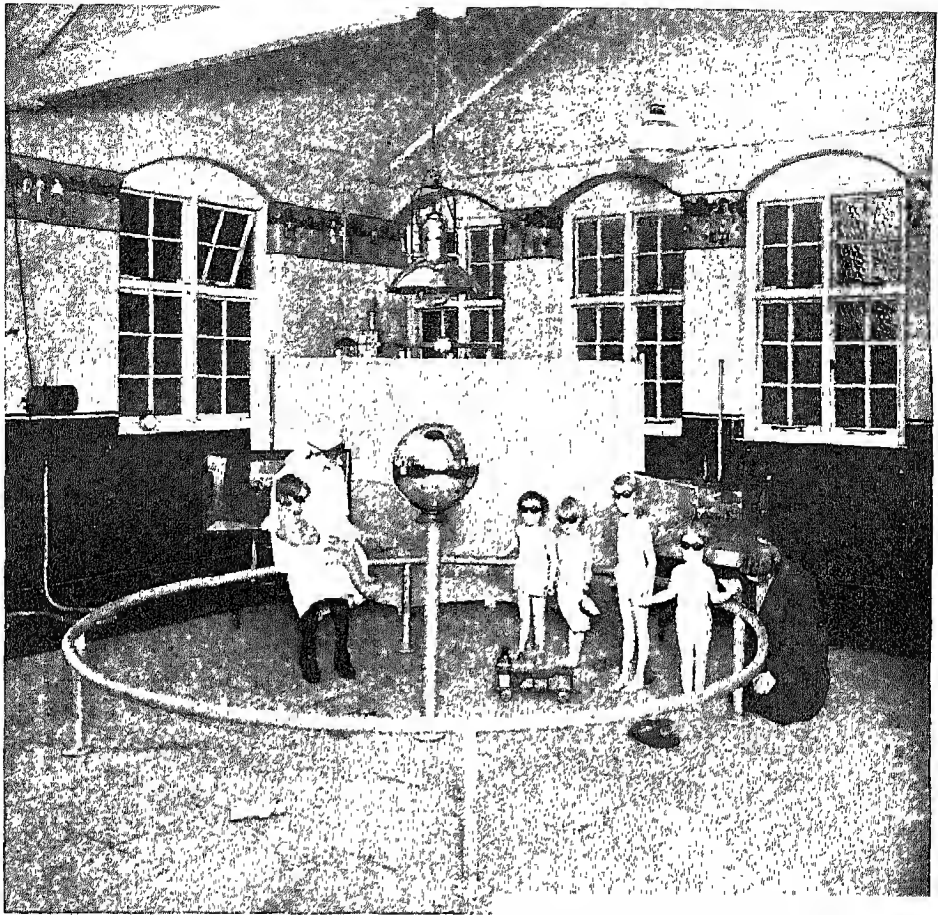
Tuberculosis has also been steadily falling during the last eighty years, and its mortality is now but a quarter of what it was in 1849. Formerly believed to be hereditary, it is now known to be mainly conveyed by infection, and the system of notification, attendance at clinics (or dispensaries), sojourn in a sanatorium, appropriate social after-care, is steadily winning its victory. Much of its decline is indirectly due to improved social conditions, better nutrition and public education, and the sanatorium principle (rest and nourishment under open-air conditions) is of wider application than the sanatorium system. The treatment of tuberculosis of bones, joints, glands and skin has been greatly advanced by the application of direct sunlight (ultra-violet rays) or the use of arc lamps. Indeed, it



VIEW OF THE CHILDREN'S WARD IN A MODERN LONDON HOSPITAL

The foundation of King's College Hospital on its present site at Denmark Hill was laid in 1909, and the building was opened in 1913. Some idea of its splendid construction and equipment can be gained from this view of the children's ward, affording a striking contrast to the old-fashioned type of ward illustrated in the eighteenth-century picture of Guy's Hospital shown in page 5046.

Photo, Central Press



SUNLIGHT TREATMENT: 'THE BABIES' CIRCUS' AT THE LONDON CLINIC

A beneficent and important part of the medical services now organized under the Ministry of Health is the provision of clinics where people of any age, sex, or class can obtain advice and treatment to prevent or arrest disease. Thus at the London Clinic in Pimlico there is perfect equipment for the application of the ultra-violet rays to patients in the early stages of tuberculosis and other diseases for which actino-therapy is an effective preventive or curative instrument.

Photo, courtesy of London Clinic

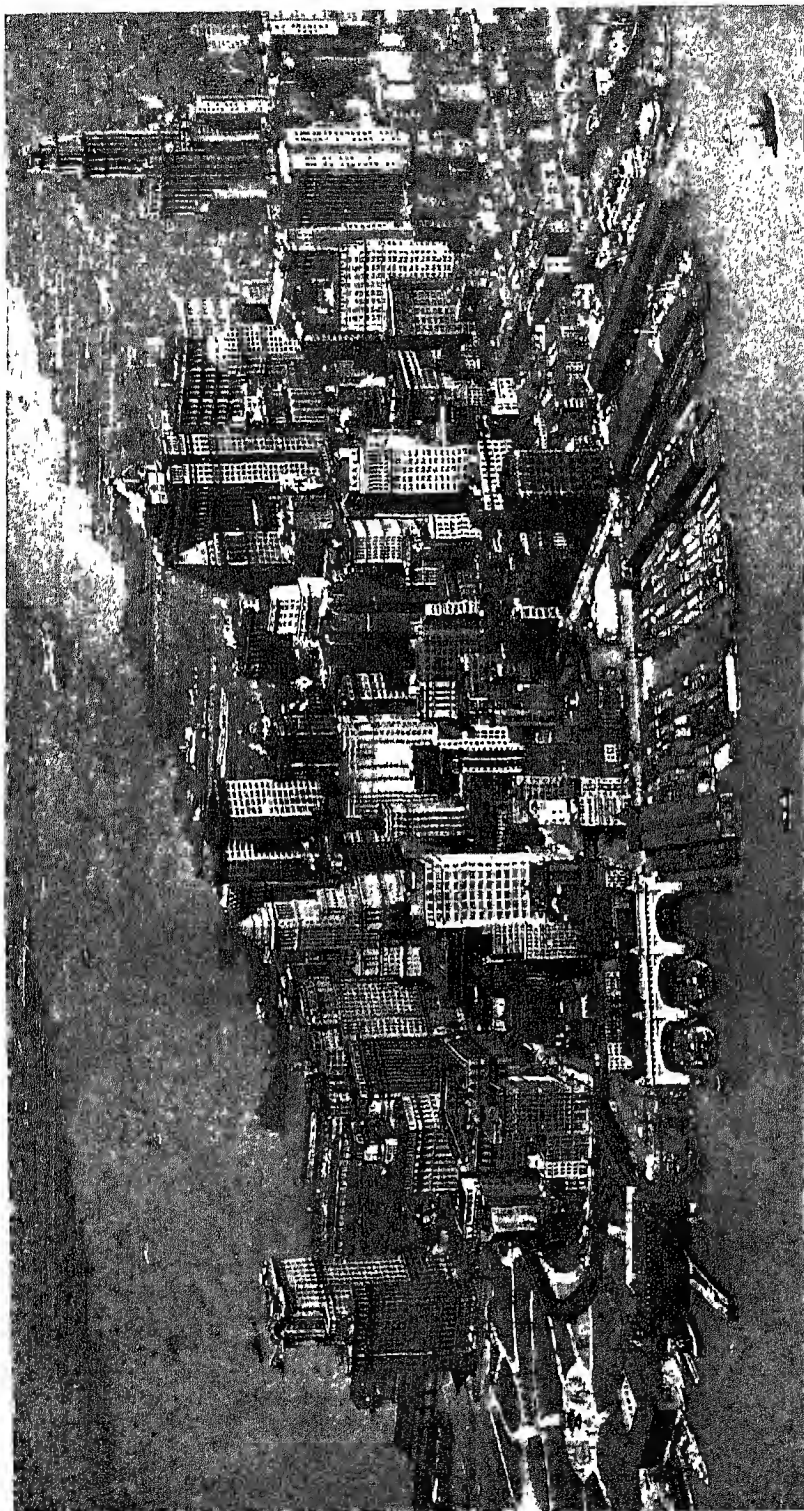
is not unlikely that actino-therapy will prove in this and other diseases to be one of the great instruments of preventive and curative medicine.

The incidence of venereal disease increased during the Great War and necessitated active prophylaxis and treatment. In 1916 a scheme of special clinics was established in Great Britain and the use of salvarsan was widely and successfully introduced. The effect of this drug is to diminish infectivity. As in the campaign against tuberculosis, so in that against venereal disease, public education on the avoidance of infection has been invaluable.

Cancer and acute rheumatic fever remain as yet undefeated. The widening sphere of

modern surgery has made early removal of cancerous growths practicable, and early removal has been proved to be ameliorative in exceptional degree. We are still, however, without exact knowledge of the causation of cancer or acute rheumatic fever, for which indeed there is at present no treatment other than prolonged rest.

In general, the prevalence of disease, apart from such maladies as influenza, appears in recent times and in civilized countries to respond chiefly to personal hygiene, direct surgical treatment and good social conditions. It is the amazing advance in these three spheres that has given us the prolongation and enlargement of life which we enjoy.



TOWERING EDIFICES THAT BREAK THE SKY-LINE OVER NEW YORK CITY'S BOROUGH OF MANHATTAN

The western type of civilization has reached its most intensive development in America. All over the United States the urban population is expanding largely and rapidly, while the rural population is either expanding slowly or actually declining. Of the ten million people inhabiting the State of New York eight million live in cities, five and a half million of them in New York City. More than half of this number occupy the island borough of Manhattan, where accommodation has had to increase vertically since it cannot further expand laterally. This has resulted in the development of the skyscraper style of architecture (see page 5033), which is a marvel of constructive genius and gives New York a beauty distinctively and peculiarly its own.

Photo, Aerofilms -

SOCIAL SURVEY OF THE WORLD TO-DAY

Lines of Weakness revealed in Western Civilization by the
Shock of War and the Reactions of Democracy to Responsibility

By IAN D. COLVIN

Author of the *Safety of the Nation*, *Life of General Dyer*, etc.

THOSE who browse among library catalogues may have been struck by the rapid growth of a new branch of study, proudly called by its adepts sociology. Every year, and chiefly from the United States of America, come more and more books upon this subject, so that the shelves of our libraries groan under their number and bulk. Every State University in America appears to have its Professor of Sociology, and every professor has written a text book. All these text books differ from one another in their methods and in their conclusions; but they are alike in the use of an imposing and apparently scientific vocabulary, and they unite in describing their study not as a mere philosophy but as a science.

Thus, if we take Benjamin Kidd as the most illustrious modern representative of the sociologists, we find him advancing the claim that sociology is not merely a 'true science' and a 'real science,' but a 'master science,' and the 'first of the theoretical sciences.' 'It is,' he says, 'the social process which is constructing the human mind in evolution. This is the ultimate fact which raises sociology to its true position as a master science.'

Impressed by these imposing claims, we set out hopefully to find the guiding principles, the established conclusions, which may help us to a social survey of the world; but we are discouraged at the outset by the discovery that our latest sociologists not merely throw down the structures but dig up the foundations of their predecessors. There is, for example, little or nothing left of the imposing system of Auguste Comte, who founded a 'methodical and positive philosophy' of society on the hypothesis that 'reason is

the superior and preponderant human element which settles the direction in which all the other faculties shall expand.' This 'true and conclusive system,' as its founder proudly described it, was pulled to pieces by the 'social psychologists' who pointed out that man is moved not by reason merely or chiefly, but by a whole complex of instincts and passions.

Herbert Spencer (see page 4533) took up the study no less systematically and almost as positively as Comte. Warned, no doubt, by Comte's example, he did not attempt to reform society upon any preconceived plan. On the contrary, he pointed out, in a famous passage in his *Study of Sociology*, that to try to correct the irregularities of society was like hammering on a cockled iron plate to get it flat—a difficult and expert business which could only be done, if at all, by little taps here and there and not by heavy blows. Spencer, however, like Comte, embarked on the study hampered by certain preconceptions, notably that the individual was of greater importance than the society of which he formed a part. 'No one doubts,' says a later sociologist, W. G. Summer, 'that the personal experiences and complexes of men like Herbert Spencer had an overwhelming importance in the development of their social and political thinking.'

Benjamin Kidd went further, and asserted that Herbert Spencer had begun at the wrong end: instead of arguing from the individual to society, he should have argued from society to the individual; his individualist principles, in fact, his doctrine of a 'beneficent private war,' in which the personal unit works out the good of

Doctrines of
the Sociologists

society by following his own advantage, was an offence to the nostrils of the next generation of sociologists. Kidd, starting at the other end, attempted to explain the individual upon a social hypothesis. Unfortunately, he also had his preconceptions. His *Social Evolution*, and *Principles of Western Civilization*, which were both written before the Great War, were inspired, or perhaps we might say inflated, by certain political ideals. He held that society was gradually rising to a 'more organic type' in which 'social freedom' was displacing the 'closed absolutisms' of the past. Or again, in even more imposing terms: 'The principle of efficiency in modern civilization is the enfranchisement of the future.'

This evolutionary process had already gone so far 'that it is almost impossible that one nation should attempt to conquer and subdue another after the manner of the ancient world.'

It might seem odd that Kidd, who began by founding his science of society upon the Darwinian hypothesis of the struggle for survival, should end in the



PRE-WAR SOCIOLOGIST

The sociological theories of Benjamin Kidd (1858-1916) are set forth in his *Social Evolution*, published in 1894, and his *Principles of Western Civilization*, which appeared in 1902. His system was shattered by the advent of the Great War.

Photo, Elliott & Fry



GRAHAM WALLAS

In his *Human Nature in Politics* (1908) Graham Wallas advocates an international science of eugenics wherein each race should improve its own type. He was a lecturer at the London School of Economics, 1895-1923.

comfortable belief that war had become 'almost impossible'; but it appears that the natural struggle is somehow sublimated and rendered innocuous when it enters into society. 'The social process is primarily evolving in the individual,' he says, 'not the qualities which contribute to his own efficiency in conflict with his fellows; but the qualities which contribute to society's efficiency in the conflict through which it is gradually rising to a more organic type.' We are not told against whom this 'social conflict' is being waged; but it is evident that, despite Darwin, nature, at least when she enters into society, puts on kid gloves and is no longer 'red in tooth and claw.'

Another sociologist of this modern school, Graham Wallas, in his *Human Nature in Politics*, goes so far as to explain how the doctrine of the survival of the fittest may be applied without blood and tears to human society. 'An international science of eugenics,' says Wallas, 'might . . . indicate that the various races should aim, not at exterminating each other, but at encouraging the improvement by each of its own racial

type.' In this happy compromise between 'racialism' and 'internationalism' the world would march into the dawn of a perfectly amiable but apparently indeterminate ideal.

If sociology were, as is claimed, a 'true science,' we should expect such leading conclusions to stand the test of at least ten years of experience. But the Great War, coming close upon the heels of Benjamin Kidd, left his system in more complete ruin than that to

Sociology which he and his brother
not a Science sociologists had reduced the systems of Spencer and Comte. And we are almost driven to the sad conclusion that sociology, so far from being a master science, is something less than a philosophy, since it is based on nothing more substantial than the prejudices and preconceptions of those who engage in it.

Nor is this surprising when we consider the difficulty of steering a course through the shoals and deeps, the million islands and uncharted intricacies of the sea of humanity. How, for example, are we to define and how divide society? Man himself is almost infinitely various; that equality, which is the basis of so many political systems, is found to be, upon the most cursory examination, merely a convenient fiction. In a single race there are some who fall below the beasts and others who approach divinity.

And races are no less diverse than individuals. How are we to look for like results from the Bengali, who may be said to pride himself upon his timidity, and the Prussian, described by Napoleon as hatched from a cannon ball? We have living on the earth to-day, and sometimes within a mile or so of one another, races who belong in their habits, customs and equipment to the Stone Age, and races in the highest state of civilization.

Even in those institutions which we regard as common to humanity there are radical differences. Take the family: there are monogamists, polygamists and polyandrists; among some races inheritance is through the mother, because paternity is thought impossible to discover; in parts of Asia and Polynesia there are whole tribes that share a common house.

In some societies woman is a chattel; in others she is almost a goddess. In some family systems the father rules, in others the mother; in still others the mother-in-law. The typical Chinaman, says J. E. Baker, in his book *Explaining China*, 'lives in the same enclosure not only with his own wives and children, but also with his father's wives and their children; a great company of parents, grandparents, uncles, aunts, cousins, concubines and more distant kin.' We are accustomed to look upon family responsibility as the beginning of citizenship; but 'for thousands of years there has been no definite location of responsibility in the Chinese family.' The women preside over the inner courtyards; the men find tranquillity nearest the street.

Whether, then, the individual creates his society, as Herbert Spencer suggests, or is a social product, as Benjamin Kidd supposes, the result is no less perplexingly varied. And if we look at the larger divisions of mankind we still find dissimilarity. A **Heterogeneity of Mankind** great part of mankind comprehends no allegiance beyond the village; another great part obeys the will of the tribe or clan; a considerable part is rigidly divided into castes. In Europe men are divided into classes and nations; but both divisions, as we shall presently see, are difficult to define, and over a great part of the world national division is unknown.

And the motives, the beliefs and the customs of man are equally the reflection of his almost infinite variety. One religion consists of rules for this life; another concentrates optimistically on the next; one is preoccupied with divine, another with sexual love; there are religions devoted to the sword and the law; ritualism, the delight of one part of mankind, is the abomination of another. If we say that self-interest is the ruling motive of mankind, how shall we explain a creed whose fundamental tenet is renunciation? With such heights and depths, such contradictions and contrarieties, it is a tribute rather to the courage than to the discretion of mankind that so many answers to its own riddle have been so confidently given.

If, however, we admit, what we can hardly deny, that man is part of nature, and that society is a human and therefore a natural composite, we might surely go farther and expect to find some guidance in those principles which are found in the rest of animate nature. It may be that the sociologist errs in aiming too high; he has possibly forgotten the humility with which Darwin treated the species of which he was a member: 'We must acknowledge that man with all his noble qualities . . . with all these exalted powers—man still bears in his bodily frame the indelible stamp of his lowly origin.'

If man is an animal, as we are not disposed to deny, he takes his part, now as always, in the struggle for existence. Where he has organized himself into societies and nations, it is in the course of this struggle; the larger unit, like the individual, develops and progresses by selection and survival. So much is clear, but these generalities do not help us very far. With whom and with what is this struggle waged? Is it between man and man or between man and nature; between nations and nature or between nation and nation? Is the struggle, perhaps, for the survival of one racial or national type? Or is mankind expected to mix with increasing friendship until all national and racial divisions are obliterated? In both events mankind would have a very long way to go since racial and national divisions are usually ancient, deep and obdurate.

Mazzini, most ardent of nationalists, looked on the nation as God's work marred by man. God, he said, divided humanity into distinct groups or nuclei upon the face of the earth . . . foolish governments had disfigured the divine destiny. But here we are faced with the difficulty of definitions. How are we to describe a nation? Under the overlaid national boundaries the older racial divisions of mankind still exist, although sometimes invisible to the casual eye, like a palimpsest upon which the later writing conceals the earlier (see Chapter 7). These make lines of weakness which are apt to show in times of stress, like the racial division between southern Ireland and

the rest of Great Britain, or the manifold divisions of the Austrian Empire—in both cases fatal to national unity. What are we to say of the claim of the Indian nationalists, covering a geographical area never united save by the British Empire which they desire to displace? British India comprises no fewer than 150 distinct languages. It is divided not only between races which despise, fear or hate one another, but between the two great religions of Mahomedanism and Hinduism—a division more deep and bitter than any difference which divides the nations of western Europe.

Again, in the United States we have a nation speaking one language but drawn from all the nationalities of Europe, with a contingent from Asia and twelve million negroes besides. That problem we shall have to consider separately; in the meantime we cite it to illustrate the pitfalls which lurk in the path of those who confuse race and nationality. There is, besides, the miraculous case of the British Empire, which unites in a loose confederation under one crown all manner of peoples and many forms of government. All we need say of these national divisions for the moment is that they are units for livelihood in peace and defence in war, that they usually have a racial basis, that they strongly adhere, and that they play their parts in the struggle for existence. National divisions are deep and national patriotisms strong.

The League of Nations is founded on the theory that they are permanent, yet some of our 'forward-looking' idealists ask us to believe that all national divisions are a barbarous survival and that mankind should be divided not perpendicularly between races or nations, but horizontally between class and class. The disastrous results of this theory we shall presently see. In the meantime we need only note that a class can hardly be a unit in the struggle for existence, since all the classes frequently live by co-operation in the same industry, and all owe their hope of continuance to combination of effort.

Let us, however, turn from these large questions of theory, and look at facts as they are. If the future will still be dark

to us we shall nevertheless in the past and in the present see processes of evolution actually at work in mankind, and we shall find that they surround and concern the immediate end of the struggle for existence—the means of livelihood.

If we look back a century or so, we find that Europe, with a population of about 150 millions, lived in the main by agriculture. Her industries generally were small and primitive, but Great Britain had been making certain surprising and important discoveries (see Chapter 163) which so far enlarged her power of production as to make her supreme in the world. The German economist, List, writing in the second quarter of the nineteenth century, speaks of England as 'a world's metropolis which supplies all nations with manufactured goods. . . . a treasure house of all great capital—a banking establishment for all nations, which controls the circulating medium of the whole world, and by loans and the receipt of interest on them makes all the people of the earth her tributary.' Germany—and Prussia in particular—was a mere market for British goods, a producer of raw material.

This progress of Great Britain then was due to an intensification of her industrial power, and in a struggle for survival the other nations of Europe were forced to

Industrial progress
in Europe follow her example or
sink to the position
of permanent economic
serfdom. We gradually

see the several great powers developing round their own industrial and commercial systems. France found her new power in the coal field of the Pas de Calais and the iron ore of Lorraine. Germany between 1815 and 1879 consolidated three industrial systems, the Silesian, the Saxon and the Westphalian, and by war took over the cotton and woollen manufactures of Alsace-Lorraine and the Minette iron fields, the largest of their type in the world; Belgium, small but favourably placed on sea and land, also developed an independent industry and commerce, which, however, she had not the power to protect. In general we see each nation striving to develop its own economic system of basic and secondary industries, commerce and banking, and all

these systems gaining in speed and power, in continual struggle and friction one against another.

The population of Europe grew with the power to support it, so that by 1914 it numbered 460 millions, concentrated chiefly in the industrial and commercial centres. In addition, it spread and overflowed. Between 1820 and 1921 thirty-four and a half million emigrants entered the United States, the British and Dutch leading the way and being followed first by the Scandinavian and German peoples, and then by the swarming races of the Mediterranean, so that at the present time the United States themselves, with a population of 110 millions, possess the most powerful industrial system in the world, while Canada with nine million people tends to follow in the same direction. There was, besides, a great migration chiefly from Spain, Portugal and Italy to Central and South America, of Dutch and British to South Africa, and of British to Australia and New Zealand.

Here we have the framework of what is called progressive or Western civilization. It is not one system but several. It is divided into Western type national organizations, and of Civilization these in their turn rest on agricultural, industrial and commercial systems. The industries are in constant and active motion, but expand or contract by the pressure of the others, and according to their relative power and speed the nations which exist by them rise and fall in relation to the rest.

Speed and mobility are its chief characteristics. Little more than a century ago the whole world was on much the same level of speed and power. On land the horse and the ox, on sea the sail and the oar, were man's chief aids in the conflict with time and space, and whether on land or sea eight miles an hour was the limit of his mobility. Not only so, but at this slow pace he could move, in a coach, a mere handful of eight or twelve passengers or in a ship a few hundred tons of merchandise. He can now transport by the thousand at a time and at the rate of sixty miles an hour on land and twenty knots at sea. As one invention gathers ideas from another even these rates are

being exceeded. In 1929 Major Segrave in a racing motor of British manufacture reached a speed of 231.36 miles an hour, and in 1927 in a British seaplane Webster made a record of 281.49 miles an hour, to be beaten later by the Italian, de Bernardi, with 318.6 miles an hour (March 30, 1928).

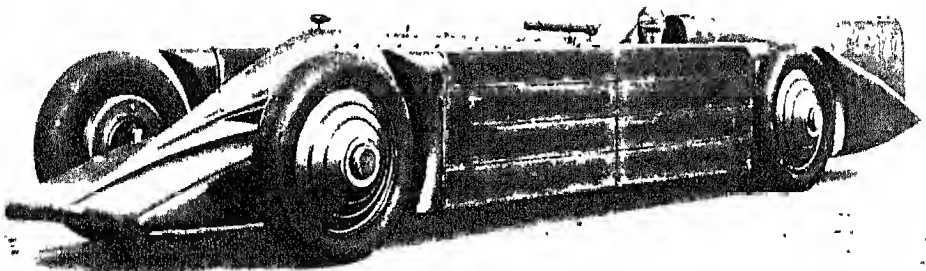
These extraordinary achievements in speed were attained not by one but by many lines of progress. For example, in the steam engine weight was thought necessary to stability; the sole pre-occupation was the development of power; coal being cheap there was no over-mastering necessity to economise in fuel; iron being cheap there was no great need to economise in material. But the invention of flight set the human mind working on hitherto neglected problems, with the result that the engine which enabled Webster to win the Schneider Cup was a masterpiece in these new economies, yielding 1 horse-power per pound of weight. Mechanical progress is produced by the interplay of one invention

with another, and goes forward in a continual race between the various sources of power to the improvement or displacement of one by another.

Thus, for example, man began his inventive career by using water power, as we see in the hammer ponds of Sussex, and in the application of water wheels to the first power looms and spinning jennies. Steam for a while displaced water, and then, with the discovery of electricity and the use of the water turbine, water power returned to its own. By the aid of what the French call 'l'houille blanche' new

industrial systems were created in areas altogether unsuitable to the older industrial systems, as in the mountainous regions of Norway, Switzerland and northern Italy, where weight of water and the force of gravity can be most advantageously utilised.

One master invention leads to another. The liberation of gas from coal came into practical use about the same time as the steam engine and was long used for lighting purposes only; but



EMBODIMENTS OF SPEED: MAJOR SEGRAVE AND THE GOLDEN ARROW

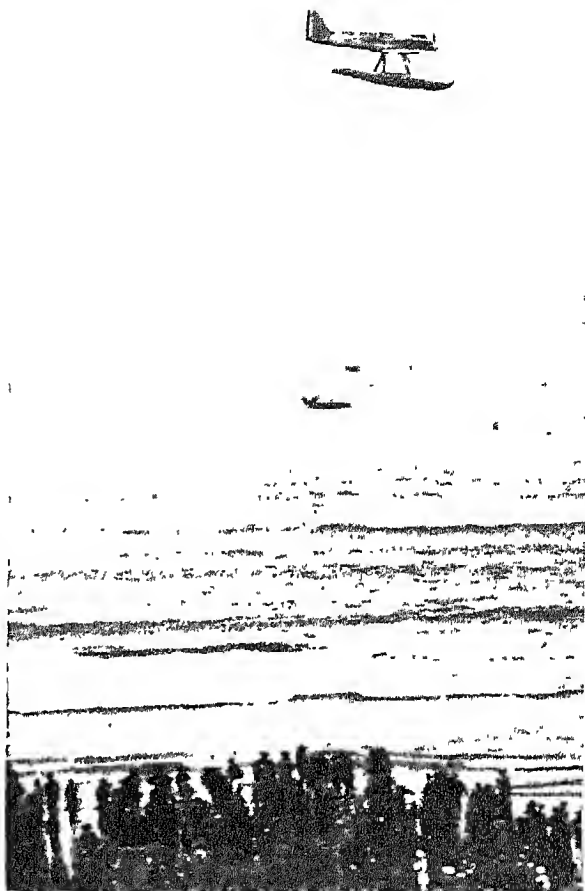
All previous records of human mobility on land were broken on March 11, 1929, when Major H.O.D. Segrave attained a speed of 231.36 miles per hour over a measured mile on Daytona Beach, Florida. The car, Golden Arrow, in which this feat was accomplished, had a 12-cylinder, 1,000 h.p. Napier-Lion engine, and was designed by Captain J. S. Irving, after whom it is officially named the Irving Special. In recognition of his achievement the King conferred a knighthood upon Major Segrave.

Photo, Central News

later, power as well as light was derived from gas, and for stationary purposes the gas engine has become a strong rival of the steam engine. Not only so, but the decomposition of coal into all its constituents produced a whole series of utilities, synthetic dyes and the most powerful explosives among them, and the by-products utilised for road surfaces seconded the invention of the motor car, which in its turn for mobile traffic became a formidable rival of the steam engine. The road, at one time superseded by the rail, took again its old importance, and the railways, threatened in their stronghold, are now taking measures to restore the economic balance by returning to the roads. So in other lines of invention, what is called the electric current was first carried along wires as a means of communication and later as a means of power. The invention of wireless communication and its economic development in the beam system of signalling threatened the cable companies, and have induced them to seek an alliance or amalgamation with their younger rival.

An invention in one industrial system may lead to victory in another. The Thomas process of treating low-grade and refractory ores was developed to deal with the sulphurous and hitherto useless iron-stones of the Continent, and gave Germany an advantage promptly utilised.

Thus the silent economic warfare of these mechanical processes balanced or subjugated one another, and also made conquest of vast areas in distant parts of the world. The abbé Dubois, who travelled in India in the early part of the nineteenth century, gave a pathetic account of the havoc wrought among the hand-loom weavers of Madras and Bengal by the power looms of Lancashire. Busy centres

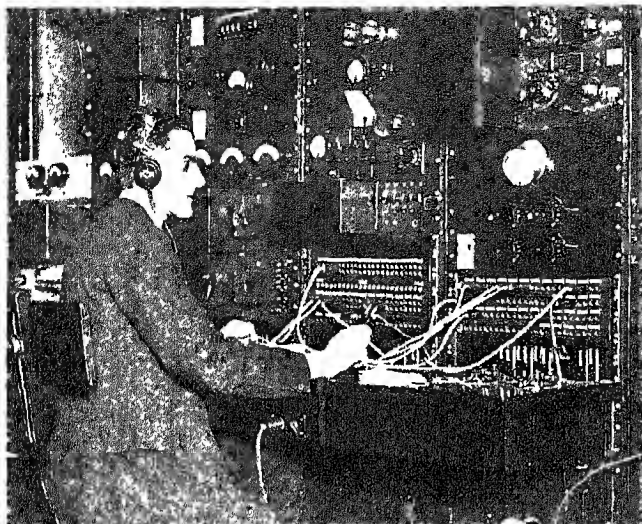


SEAPLANE'S RECORD SPEED IN 1927

International competition for the Schneider trophy has resulted in astonishing development of marine flying machines. On September 26, 1927, Flight-Lieut. S. N. Webster covered the Lido course of 218 miles at the then record average speed of 281.49 m.p.h. in a Super-marine Napier S 5 monoplane.

Photo, Daily Mirror

of industry were reduced to idleness and famine, or sought refuge in agriculture. Towards the end of the nineteenth century, India began to import cotton machinery from Manchester and to drive out the products of Lancashire, so that the north of England was threatened with the fate with which its inventive genius had once overwhelmed the people of India. But the superior ingenuity of the Western mind found a mechanical means of producing the exquisite filaments of the silkworm, and partially restored Europe's position in the markets of India with fabrics that combine the sheen of silk



LONDON TELEPHONING TO NEW YORK

Contact with America by wireless telegraphy was first effected in 1902, and on October 7, 1907, wireless telegraphic stations for trans-Atlantic communications were established. Wireless telephony presented greater difficulties, but on January 7, 1927, a trans-Atlantic wireless telephone service was opened to the public.

Photo, Sport & General

with the cheapness of cotton. Thus, in the realms of mechanical invention we are able to trace the struggle for existence and the survival of the fittest which Darwin saw in the realm of nature.

The idealists see in this mechanical progression the promise of an age of universal peace; but those who consider events must admit that so far it has not altered the fundamental fact of an eternal struggle for existence. For, as we have already pointed out, not one but several great industrial, commercial and economic systems are in continual rivalry one with another, have their conflicts and form alliances for attack or defence, but have their own centres of intense but natural egotism and self-interest.

Those who contend that the interaction of industry and commerce is reducing the separate entities which have been rivals to a co-operative commonwealth with a common interest ignore certain rather stubborn facts in the situation. There are, it is true, delimitations of areas and exchanges of patents between the various industrial systems, but these systems themselves still firmly rest upon a national basis. The great Steel Corpora-

tion of the United States is American in control and interest. The German Stahlwerksverband is a cartel of German steel producers, and although it has made arrangements with similar steel cartels in other Continental countries it has in no way modified its characteristically German composition and uses the power of its combinations for a fundamentally national attack on the British steel industry as well as for competition with the American steel industry in the markets of the world. The lending of capital by one economic system to another may exploit, but does not unite; nor, as we saw in the Great War, does it prevent a conflict.

The League of Nations itself is not a real international organization, since the powers which compose it jealously preserve their independence. It rests, indeed, upon a franchise of present military and naval power, ignoring both the growth and decay of nations and that eternal struggle between separate national and economic systems which is the root of war. In sum, it permits the cause while forbidding the effect, and as the cause seems to be nothing less than a struggle for survival, which is held to be a law of nature, any prohibition would appear to be futile. Even if nations should not think it worth while to resort to the more violent forms of warfare, the economic and industrial warfare would still proceed, and would enslave and exploit and might even destroy those races and nations least fitted for survival. Man cannot contract out of nature or the struggle for existence.

If, however, the eternal struggle is for the means of livelihood, it might be argued that the mechanical power, which increases the means, should abate or

modify the struggle. And so it appears at first sight; but we have to remember that the increase in production is to some extent balanced by the increase in demand and the increase in population. Not only are there more people but these people have greater needs than the old population in its more primitive form of life. Yet the statistician finds comfort in demonstrating that the growth of production does draw a little yet sensibly ahead of the growth of demand, so that there is a rise in the level of living. The standard of life and the level of real wages have both risen since the age of mechanical expansion began, and that at least we may call progress.

Civilization, in its growth, not only keeps pace with the increase of its people but raises their lot. Its mobility, as we have seen, has enormously increased. It can bring its requirements in bulk from the ends of the earth; it can feed itself from the pastures of Argentine, Australia and New Zealand. As it can control tempera-

ture it can bring its pro-
visions not merely salted
down or canned, as of
old, but chilled and
fresh to its table. It has, besides,
multiplied the productive power of
agriculture. It has invented harrows
twenty-five feet wide; multiple ploughs
which turn several furrows at once at
double the pace of the horse; harvesters
which cut a swathe of fifty-two feet, and
not only harvest but thrash the corn in
the field. It has so modified the character
of wheat by selection that it defies the
frosts of Canada and is vastly extending
the wheat belt of the world. For clothing
it brings the wool of the Antipodes to
the looms of Bradford. It has, if we take
civilization as a whole, 165 million
spindles for the spinning of its cotton; it
can turn a forest into silk or into paper;
it brings up gold, oil and coal from depths
of thousands of feet.

By all these means civilization contrives to keep a little ahead of the growth of its population, and this fact, which we have dared to call progress, gives buoyancy and hope to Western thought. 'The living organism,' says Wyatt Tilby in his *Quest of Reality* (1927), 'has to maintain

itself against the external world as a first charge on its resources.' 'The balance of unspent energy' is, therefore, 'the source of our free will.' If humanity has increased its balance of unspent energy by all these inventions its free will is correspondingly enlarged.

True, the margin of free will is as yet small. It is, for example, salutary to remember the ratio between man's top speed of a little over 300 miles an hour, and the speed of light. It

is well, also, to keep in mind that this progress is local and relative, and may be

Progress may
be temporary

temporary. The standard rises with the progress and expansion of a particular industrial system, but when that system sustains a severe shock, as in the Great War, or falls behind in the race, the scale of living becomes stationary or goes down. Sir Josiah Stamp has calculated that the average level of real wages to-day in Great Britain is four times as high as it was in the beginning of the nineteenth century; in other words the average wage earner at the present time can command four times as much of the necessities and luxuries of life as his forefathers of a century ago, and this although the population has increased fivefold. But since the war, owing to the disorganization of the industrial system, there has been no such progress.

Experts, like Professor Bowley, Sir Josiah Stamp and the Colwyn Committee, compute that the national income in 1924 was the same in real value as before the war. It has to be allowed, however, that the population increased in that time by nearly 7 per cent., so that, there being more people to share it, the income per head is lower. 'It seems likely,' says the report of the Liberal Industrial Inquiry (1928), 'that in spite of unemployment, short time, etc., the real income per head of the country is only a little lower than before the War. It must be counted a poor achievement that after fifteen years of startling scientific advance we have scarcely maintained the real income per head of 1911.'

In the United States, on the other hand, where the profits of the Great War were larger than the losses, the upward



MAN POWER IN CHINA

Even where railways exist steam power has not completely ousted man power for goods transport in China, where the two can sometimes be seen side by side. A Chinese coolie can carry logs weighing 200 lb. ten miles a day.

Photo, Camera Craft, Peking

progress in well-being has been continuous, and the ratio of wages to commodity prices has steadily increased. This is clearly shown by a Report of the Federal Reserve Board of the United States, which examined the figures in thirty-four representative industries for the year September, 1924, to October, 1925. The board found that whereas employment had increased 6.4 per cent., the wages bill had gone up by 12.6 per cent., or nearly double. Nor was the increase extorted from the employers by trade union action, since the industries in which the greatest increases took place followed a system of payments by results. The rise in wages coincided with abundant prosperity and expanding markets, as is shown by the fact that the production of the industries examined in the period under review increased by 28.8 per cent., more than double the rise in wages.

Furthermore, the United States Department of Labour in its table of wages and prices, using the 1913 level as the unit of 100, calculates the 1920 wage rate at 199 and the 1924 wage rate at 228; the price level in 1920 stood at 226, but by 1924 it had fallen back to 150.

These results are made possible by an industrial system of enormously and constantly expanding power. Thus, a single American motor company employs no fewer than 200,000 workmen, at a minimum wage of 29s. 6d. a day, and sells 2,000,000 motor-cars a year.

Here then we have the leading physical characteristic of what is called Western or progressive civilization. It springs from the application of gigantic natural forces—steam, water power, electricity—to the tasks and burdens formerly laid on the hands and backs of men and beasts. There is an obvious and interesting comparison to be made with what might be called static or stationary civilization which still exists in a great part of the world and notably in Asia, and we are given materials for this comparison in a book called *Explaining China*, by John Earl Baker, from 1916 to 1926 adviser to the Chinese Ministry of Communications.

In mere man power, China, with a population of more than 400 millions, is enormously superior to the United States, which, according to the census of 1920, had a **Standards in** population of under 106 **China & U.S.A.** millions; but whereas in China work and transport are still in the main primitive, in the United States they are done largely by machinery. So, according to the census of 1923, the United States in their manufacturing establishments had a mechanical horse power of over 33 millions, which gives an equivalent man power of something like 400 millions. There was besides the mechanical power used in agriculture, in mining, in forests and in transportation. In 1923 the railways of the United States hauled freight equivalent to 416 thousand million tons the distance of one mile. On the generous assumption that a man can carry 100 pounds on his back 20 miles every day in the year, this railway power of transportation added over a thousand

million man power to the industrial strength of the United States.

Thus, whereas in China there was an adult working male population of, say, 100 millions, in the United States there was added to the 25 million working males something like two thousand million man power in machinery. And the result is that whereas in China consumers outnumber producers by 4 to 1, in the United States producers outnumber consumers by 20 to 1. Accordingly, the consumption per head in America might be 60 or 80 times as great as in China without depleting accumulated wealth. Of course, we must allow for the fact that there are some railways, a certain amount of machinery and a very considerable amount of water transport in China; but it remains true that human carriers still compete for its transport. The general result is that famine is never far from the door of a very large proportion of the Chinese people, and millions of Chinese have not the wherewithal to satisfy their bare animal needs, or to protect themselves against hunger, cold, wet, injury and death, even in the prime of life (see further in Chapter 173).

When we remember that James Watt applied steam power to rotatory movement only 150 years ago, and that before that

time Europe was much on a level with Asia, and America infinitely behind, we arrive at some concep-

tion of the superiority of Western civilization in mere material well-being, in power of production and provision of those necessities and luxuries that go to the life of man. Before the shock of the Great War weakened and partially paralysed civilization, this superior power of transport and production had given to the West an easy supremacy in the world, had penetrated South America, Africa and Asia, had made them the base of its supplies and was forcing them to choose between following in its wake, as in the case of Japan, or accepting a position of economic inferiority.

We have already hinted that there is a danger in describing this impressive phenomenon as progress. We are chastened by the knowledge that other civilizations, hardly less imposing, have risen like waves

from the surface of the sea to fall again in ruinous chaos, and 'throw that faint thin line upon the shore'; that history shows no continuous and steady advance upwards, but that successive civilizations, like a series of waves, arise only to fall again, and leave hardly a trace behind them. Before the Great War, Western civilization seemed to rest on so strong and world-wide a foundation that there were hardly any who questioned its permanence; but even then there were bitter or despondent spirits who turned with chagrin from the imposing structure of the Occident; some sought to reform, others to destroy civilized life.

In considering these lines of criticism and attack, which have developed so formidably since the war, we must allow something for the fatigue

which comes from the **Reactions against Civilization** increased pace of civilization, and we must

allow also for the satiety which is apt to follow the increased gratifications of modern society. The critic of life often lays bare only his own soul to the pathologist. That 'Weltschmerz,' or weariness of life, which has inspired so many attacks on Western civilization, may spring from some subjective weakness or weariness following excess, which turns with disgust from what it has eaten of too greedily.

If we want a clue, for example, to Count Tolstoy's bitterness against society, we find it in that depressing masterpiece, *The Kreutzer Sonata*, a study of the loathing which comes from loving too much. The superhuman vanity which springs from a disordered mind may have been the hidden spring of Nietzsche's doctrine of the 'super-man'; his demand that everyone should live his own life, free from every social restraint, in a species of anarchy. A weakness of physical equipment may have led John Ruskin to denounce all modern life as ugliness, and seek refuge in an ideal period before Raphael, or may have prompted Thomas Carlyle to invoke some fist strong enough to shatter the sorry scheme of things as he saw them. So, possibly, in the later case of Oswald Spengler, the author of *Der Untergang des Abendlandes* (*The Decline of the West*), who described civilization as a sickness or

senility, who likened the modern spirit to Faust, consuming himself with feverish unrest and longing, selling for enjoyment his soul to the devil.

Such enmities, whatever their motive, are formidable because they appeal to a considerable body of the disaffected. The increasing speed of civilization ; the jolts it gives to settled life ; the scars of the new roads it cuts across the world ; the friction and heating of bearings ; the changes, resettlements and readjustments ; the thousand and one strains and stresses, as it impinges on this side or the other of its line of advance—all lead to reactions and resistances dangerous to its stability.

We shall best see the substance of these complaints and attacks by looking a little more closely into the results on society of the developments which we have just described. Although in the course of a century the population of Europe has increased fourfold, and that of the United States nearly a hundredfold, and although wealth has increased in an even greater ratio, the expansion has not been uniform or constant. There has rather been con-



LEO TOLSTOY

The Russian writer, Leo Tolstoy (1828-1910) won fame as a novelist, an advocate of international peace and a preacher of social equality. In his greatest work, *War and Peace*, he vividly describes the horrors of war in Napoleonic times.



DR. OSWALD SPENGLER

Oswald Spengler (b May 29, 1880) combined scientific study with the study of history and art and wrote much on cultural and political problems. His most important work, *Der Untergang des Abendlandes*, was published in 1918.

Photo, E.N.A.

centration in the towns and a change from a predominantly rural to a chiefly urban form of life. In 1790, for example, Philadelphia was the largest American city and contained 42,000 people. The four million people who then lived in the United States were chiefly farmers, planters, seamen, lumbermen and trappers. Now, in the state of New York, of a total of ten million people eight million are urban ; and more than half the population of the United States lives in cities. 'In whole states and in hundreds of counties,' says A. P. Brigham, in his *United States of America*, 'the rural population is either declining actually, or increasing more slowly than the urban groups.'

And so in Europe. In England, London has increased sevenfold, and while Lancashire, the West Riding of Yorkshire, Glasgow and other industrial areas have grown enormously, the rural population has in many cases been either stationary or in a state of decline. France has contrived to maintain a better balance between agriculture and rural industry ; but has fallen behind in the race for population as compared with Germany, whose

powerful industries support an enormous urban population. Even in new countries which support themselves chiefly by grazing and agriculture, we note the same tendency. About two-fifths of the entire population of Australia is contained in the two cities of Sydney and Melbourne.

In some cases the rural population has shared the benefit of the general advance in well-being. The Prussian peasantry were described by William Jacob, who was sent by the British government to report on the state of Germany in 1819 and 1826, as in a condition of poverty more abject than we see in China at the present day. The implements of their husbandry were as poor as their working cattle; their ploughs were made chiefly of wood and very little iron; the use of rollers was unknown, and the clods were broken with wooden mallets. They lived in miserable dwellings on the lowest and coarsest food, many of them eating only potatoes and rye. An earthen pot was the most valuable article of their furniture, and they wore coarse homespun wool or linen as

long as their garments could hold together. Prussia was then almost without industries and lived precariously by war, and the sale of her surplus corn.

The great development of railways, of machinery and of electrical power, however, has transformed northern Germany into one of the most prosperous countries of Europe. The scientific culture of the sugar beet has introduced deep tillage and supplied with manure the sandy soil of Prussia. Every rural sugar factory is a wealth-distributing centre; a network of transmission lines supplies the farms and villages with electric power and light, the



PLEASANT HOMES AND PROSPEROUS PEASANTS IN EAST PRUSSIA

Whereas in the early nineteenth century the East Prussian peasantry were apathetic, indolent, ill-nourished and ill-housed, they are now an industrious, prosperous people owing to the development of the beet sugar industry. More than a million acres are under sugar beet, providing work for women as well as men. Housing conditions are admirable, as in the post-war village of Gross Sobisch (top), where the peasants' cottages have all been built from designs by a prominent German architect.

Photos, E.N.A.



ALEXANDER STAMBOLISKY

Himself of peasant origin, Alexander Stambolisky (1879-1923) became the leader of the agrarian party in Bulgaria. In 1918 he headed the insurgents who deposed Tsar Ferdinand and became premier in 1919. He was shot in 1923.

Photo, E.N.A.

cattle are maintained through the winter by the help of feeding stuffs imported from a distance, and the peasantry, instead of being idle and listless as they were described by Jacob, are now energetic, well clad and well housed.

Yet it remains true that over a large part of the rural area of Europe the country population has not kept pace with the town, and in Great Britain especially, and in other countries as well, the town came to rule the country without much regard to the rural interests.

In England, owing to its insular position, the crisis was never so severe, but on the Continent where war disorganized the whole system of European commerce the industrial centres could no longer feed themselves with imported food, and the country again reasserted its ancient power. The farmers once more controlled the food supplies, and when the 'proletariat' turned hungry eyes on the land a shrewd peasantry was not slow to realize that its turn had come again.

And so it came about that the revolutions immediately after the War were

largely, although by no means altogether, conflicts between country and town. The towns attempted to force the country to provide them with food, offering a debased paper currency in exchange. When the peasantry resisted, there were attempts to 'socialise' the land; thus, in Hungary, where the Reds divided the country into 'communal' estates, the peasantry attacked and destroyed the Communist republic. In Finland a White Army recruited from the peasantry overthrew the Communist government; in Bavaria the revolutionaries of Munich and elsewhere were starved out by food blockades; the Bauernbund, or Peasants' League, of Switzerland was organized to blockade the industrial centres and suppress industrial revolution.

A shrewd American observer, Lothrop Stoddard, in his study of Social Classes in Post-War Europe (1925), describes this widespread but unrealized war between town and country that succeeded the Great War between nations. Its most dramatic manifestation was in Bulgaria, where Stambolisky led the peasants in an anti-urban crusade, and was elected prime minister in 1919

**War between
Town & Country**

by an overwhelming majority. This rural dictator proclaimed to the assembled peasants in Sofia shortly afterwards that not the town but the village should henceforth rule Bulgaria. The towns were centres of wickedness and corruption; the country must reform society. 'We are now able to do what we will,' he exclaimed; 'Sofia is another Sodom and Gomorrah, inhabited by speculators and producers of nothing. Let the townsfolk take warning lest their town be turned into a village.'

The failure of this experiment is no less significant. After ruling four years, corruptly and ignorantly, Stambolisky fell as a victim of a conspiracy organized in the capital. The town reasserted its higher intelligence and concentrated power. The country showed itself strong in a crisis but weak in sustained effort and organized administration. The town, after all, is a social necessity.

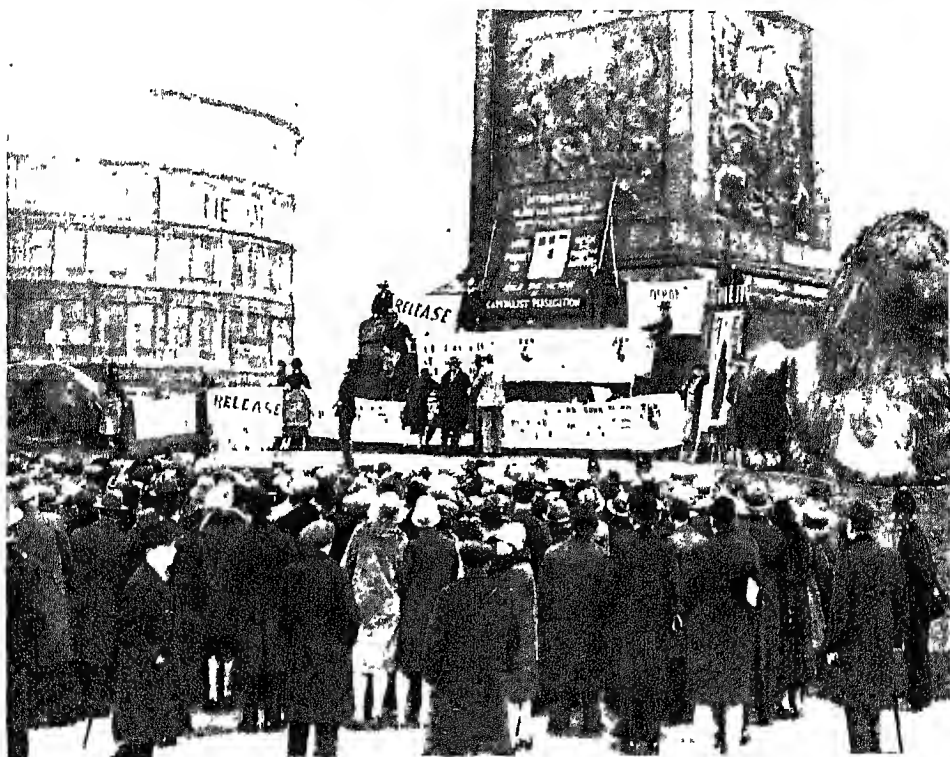
Nevertheless, the war had the effect, at least temporarily and in eastern Europe,

of strengthening the country and weakening the town. The Green International, as it was called, in 1925, after an existence of five years, claimed to be several millions strong, and to have given one prime minister to Czecho-Slovakia and another to Poland. An organization of farmers and peasant proprietors, it opposed its quiet power to the violence of the Red International, and the Communists recognized in it a formidable and irreconcilable opponent.

It was, however, in Russia (see Chapter 184 for fuller details) that this conflict between the Red and the Green, the town and the country, was fought out on the largest scale and with the most notable consequences. At the beginning of the revolution, the peasantry, tempted by the prospect of taking over the land of the great landowners, joined in the orgy of

massacre and robbery; but having possessed itself of this land, its interest in revolution ended, and when the hungry and disorganized urban mob turned to the country for food, offering nothing in exchange, the peasantry became for some time actively, and always passively, hostile. The 'dictatorship of the proletariat' decreed the confiscation of the surplus of grain; the farmers replied by ceasing to produce a surplus; the weapon of terror was met by the weapon of famine.

This conflict between town and country suggests one weakness in modern civilization; but it is overshadowed by another and more threatening fissure which began as a mere crack about the middle of the nineteenth century, had grown deeper in the years that followed, and, suddenly widened by the strain of the Great War



MEETING OF AN INTERNATIONAL CLASS-WAR ORGANIZATION IN TRAFALGAR SQUARE
Carrying the Marxian arguments about capital and labour to their extreme logical conclusion, an international party of Communists advocated war between the employing classes and the proletariat the whole world over. In London, where this photograph was taken in January, 1929, these fanatical propagandists were treated with characteristically British tolerance by the authorities. The placards denounce 'capitalist terrorism' in China, Poland and Italy, as well as in Great Britain.

Photo, Photopress

threatened to engulf the whole fabric of modern civilization.

We must beware in approaching this social struggle of accepting the terms commonly used to describe it, since they are apt to lead to false conclusions. To call it, for example, a struggle between capital and labour is to beg the question, for both of these abstract terms may be made to mean anything or nothing. To call it a struggle between employers and employed is also misleading, since in many industries and most countries the great majority both of employers and employed refused to accept such a division.

The Marxian case (see page 4986) is that, all wealth being created by labour, the employing class, by its monopoly of capital, contrives to exploit the worker and possess itself of the surplus wealth it has created. As this process is continuous and progressive it follows that the employing class is destined to become richer and the working class poorer until there remains to the latter 'nothing but their chains.' Hence, the 'class war' and 'revolution,' so that the 'employing class,' the 'industrial system,' 'capitalism,' and in fact society, may be swept away, and the 'proletariat'—the many without property—may possess the world in common.

Now, if the Marxian argument were well founded, we should have had to trace in our survey of industrial expansion a continuous lowering of real wages, whereas, as we have seen, it was actually accompanied by a continuous growth in real wages, and this despite the great growth in the population to be supported. We have seen also that where industrial expansion is checked by such a cataclysm as the Great War, there is a check also to the growth in well-being or real wages. Still further, we have seen that where industrial organization is highest and mechanical transportation most developed there also are to be found the highest real wages and most prosperous conditions; and that where mechanical power and transport are least developed there we find the greatest poverty and the hardest forms of existence.

If Karl Marx were right the opposite would be the case; we should have the

greatest prosperity in China and the greatest misery in the United States; we should have a continuous degradation from the agricultural Germany of Jacob's survey a century ago to the industrial Germany of the present time. Moreover, we should expect to find the fiercest 'class war' where industrial development is high and the contrary where it is low; yet the opposite is true. In the United States at the present time there is general industrial peace, whereas in the Russia of the Revolution there was the fiercest industrial war. So also in England; before the War, when its industrial system was expanding, both the number and the extent of industrial conflicts were much less than after the war when industries were losing ground.

Let us look at these industrial and social questions a little more closely. Two English engineers, Bertram Austin and W. Francis Lloyd, in their book, *The Secret of High Wages*, give an account of an industrial tour in the United States, undertaken not for any political purpose but to examine methods of factory organization. They show that, at least in engineering, the employers and workmen in America have come to a *modus vivendi* on the basis that the interests which divide them, namely, the division of the profits of their production, are very much less important than the interests which unite them, that is to say, the progress and health of the industry by which they both must live.

A system of payment by results encourages initiative and promotes efficiency; high wages are given only for good work; the lower the cost of the article produced and the greater the production the higher the reward of the producer. So far from the worker having 'nothing to lose but his chains,' he owns commonly his own house and his own motor car. So far from the 'class war' increasing in intensity, the statistics of industrial disputes in the United States show a decrease from 4,450 in 1917 to 1,227 in 1924.

If we turn to the industrial conditions in Great Britain we have to note a series of great strikes culminating in the general

Breakdown of
Marxian case

Facts of the
industrial situation



SCENES OF DAILY LIFE IN THE BRITISH GENERAL STRIKE OF 1926

Prolonged industrial depression in Great Britain, especially in the coal industry, where partial unemployment was accompanied by reduction in wage rates, led in 1926 to a general strike which threatened to paralyse every public service and deprive the community of vitally necessary supplies. The Government dealt energetically with the situation, in London organizing a depot in Hyde Park for the collection and distribution of milk, and guaranteeing protection for volunteers who carried on the train and omnibus services from molestation by pickets and strikers.

Photos, Topical Press Agency and (bottom) The Times

strike and coal strike of 1926, when a great part of the workmen were reduced to organized idleness, and we find that this increase in strife coincides with a long depression in the staple industries of the country. The British steel industry, capable of producing 12 million tons a year, was producing only 7 or 8 million tons; in

the woollen industry no fewer than 200 mills went out of business in four years, and the export of woollens fell from 186 million square yards in 1922 to 163 million square yards in 1926; in the cotton industry the industrial crisis was hardly less severe; but it was most devastating in the coal industry, where, moreover,

the proportion of labour to production is higher. In that industry, profits had altogether disappeared, and as his wages are based on results, the miner was faced not only with partial unemployment but a reduction in wage rates. Thus, a period of fierce industrial conflict roughly coincided with the severe industrial depression, and the conflict was fiercest where the depression bore most directly on the position of the workmen.

It is obvious that we cannot press these parallels too far, since in some of the industries most depressed there was no industrial struggle, employers and workmen realizing equally the plain truth that to fight over the sharing of their diminished profits would merely lessen the profits to be divided. Yet, looking at the position broadly, we see that in this case also the Marxian doctrine bears no sort of relation to the facts.

We come to an even clearer demonstration of these simple truths when we consider the case of the **A Communist country from which what experiment is called 'capitalism,' or the machinery of modern civilization, has been swept away in order to provide a clear field for the alternative 'system.'** Russia never had a very high economic organization, although she possessed considerable industries. She lived before the War chiefly on her own produce and by the business of selling to western Europe a great part of the food and raw material by which it lives. Wheat, flax, eggs, timber, furs, oil were supplied to the west in enormous quantities, and Germany and the north of Europe generally, where cattle have to be housed and fed in winter, looked to Russia to supply them with those coarse kinds of grain which are most suitable for that purpose, and in return Russia bought those manufactured goods and clothing that she was unable to manufacture herself. The exchange of food and raw material for manufactures is not the most profitable sort of livelihood, but it served to maintain the people of Russia beyond the reach of famine.

This way of life, brought to a stand by the war, was altogether destroyed by the Revolution of 1917. The Bolsheviks made

a clean sweep of the whole system—government, banks, commerce and organized industry—in order that they might have a tabula rasa for their experiments. In the course of the struggle and the famine which immediately succeeded it there was a loss of life estimated at 16 millions, or greater than was caused by the Great War. There was in the end no resistance, but economic facts eventually forced the Soviet to its New Economic Policy (see page 4970).

Such small concerns, however, as were permitted thereby were so jealously watched and so frequently interfered with that, for the most part, people refused to take the risks involved. In 1925-26 only five per cent. of the industrial concerns—and these usually employing not more than twenty men—were in private hands. The state had therefore a monopoly of large industry, and it commanded besides not only the factories and plants which it took over from the old system, but the labour trained under that system, with the power to requisition such experts and works managers as were left alive in Russia.

Anton Karlgren, Professor of Slavonic at the University of Copenhagen, in his book on Bolshevik Russia (1927), makes a careful comparison between the progress claimed and the actual position. He points out that the Soviet's statistics are usually based **Actual state on comparisons with posi- of Russia tions in 1921, when as a fact** there was almost no production. In that year, for example, the yield of iron had fallen to two per cent. of what was produced before the Revolution. It was by this comparison with virtual zero that Kalanin, in 1924, was able to claim 'quicker progress than any of the Western European bourgeois countries whatever.' If, however, comparison is made with the pre-revolutionary Russia the truth begins to emerge. In the report, October, 1924, to September, 1925, the Soviet government states that the total of its industrial production amounts to about 70 per cent. of that under the old regime.

Moreover, although the goods were assumed to be weight for weight the same, they were, in fact, 'immeasurably inferior in quality.' And further, while the old industrial system paid its way, the new

was heavily subsidised. This expedient was forced upon the Soviet by the very curious economic crisis of 1923. Although the manufactures were only 30 per cent. of the yield before 1917, there was a glut of goods in the stores and no possibility of sale. The Russian people could not afford to buy its own manufactures. 'It became clear to us,' wrote Dzherzhinsky, 'that the prices of our goods must be lowered, and we followed this up by the principle that the cost of production must not always be the determining factor in the price.'

What in private enterprise would be regarded as ruinous was hailed by the Communists as a 'lever that will lift our industry to an unforeseen height.' It was this system of selling under cost that brought production to 70 per cent. of the old standard. Besides direct subsidies these losing industries obtained increasing advances from the state banks. Whereas in October, 1924, they owed the banks 466 million roubles, 12 months later the debt was 926 million roubles.

With this economic bankruptcy there was no improvement in the lot of the workers. The Soviet, as Stalin confessed, was almost overwhelmed by 'the wave of strikes and unrest which in August, 1923, rolled over parts of the Republic in regard to wages.' The Soviet tried to mend matters by appointing Dzherzhinsky, who had been head of the

Decline in the quality of work Terror, to preside over the Supreme Economic

Council. He was a man of daemonic energy; but the indiscipline of the workers proved too much for him. In a speech made in December, 1924, he drew a remarkable comparison between labour then and in 1913. Taking the production of 100 men in 1913 as a comparison, coal required 214 men, naphtha 213 men, shoe-making 234 men, chemicals 292 men, tobacco 218 men to produce the same result. Whereas in 1913 the value of a year's work of one man in the South Russia metal industry was valued at 3,227 roubles, in 1923-4 it was estimated at 988 roubles. And he concluded his comparison with this devastating summary: 'The number of workers is nearly the same as before the war; but the production is only one third of what it was then.'

It is not altogether surprising that his failure so wrought upon his fanatical brain that he broke out into wild abuse of the dishonesty of the whole system and died with suspicious suddenness.

The disastrous failure of this extraordinary experiment was indeed inevitable. What the socialists call the 'capitalist system' is in fact no system at all, but rather the living and intricate growth, intensified and enlarged by mechanical inventions, of the means by which man has always lived since he emerged from barbarism. The savage, if he lives in a kindly climate, may satisfy his daily needs as they arise, from the shore and the sea. He starves when nature fails him, and when he begins to lay by and exchange the surplus of his daily toil he takes the first step towards both capitalism and civilization. The accumulation and free currency of these surpluses makes civilization possible, nor is there any alternative but starvation.

It would be misleading to leave the reader under the impression that the state of Russia is due to a mistaken theory of economics, carried out by amiable theorists who have gone wrong. The 'terrible sect,' as Mr. Winston Churchill called the Communist party, was a small minority, at the beginning probably only a few thousand strong, composed largely of alien criminals and fanatics, and using hatred, ignorance and the passions produced by the Great War as a means to power. Lenin, in one of his bursts of frankness, told his brother Communists that 'among a hundred so-called Bolsheviks there is one real Bolshevik with thirty-nine criminals and sixty fools.' The medical professors of the University of Kiev found an opportunity of examining the leaders of the Red Terror, with the most startling and significant results. The professors found degeneracy, alcoholism and syphilis in nearly every case.

We are too apt to think of civilization as an even process permeating every individual and all society in equal degree, and leaving nothing of the barbarism it has displaced. The truth is otherwise. Civilization is a recent growth of a few thousand years, behind which lies age upon age of

the mere brute, the unrestrained savage, whose primordial nature is strong in the make-up of humanity. 'The most civilized empires,' says Rivarol, 'are as close to barbarism as the most polished steel is to rust; nations, like metals, shine only on the surface.'

Modern investigations suggest that the 'advance' of man is probably the work of a superior minority which has dragged the neutral masses unwillingly or passively in its wake. When the United States entered the Great War, the army authorities,

faced by the task of rapidly sorting out a mass of Mankind's low mental average 1,700,000 young men, applied a series of intelligence tests, carefully devised so as not to depend upon literacy or language, and the result showed that less than 1 in 20, or 4½ per cent., possessed high intelligence. Major Yerks and Major Yoakum in their *Army Mental Tests* (1920) describe this most elaborate examination ever made of the mental powers of a nation. Nor does it stand alone, for similar tests have been made upon large numbers of American school children.

An American writer in some alarm says :

If those examined are representative, it means that the average mental age of Americans is only about 14; that 45 millions, or nearly one half of the population, will never develop a capacity beyond the stage represented by a normal 12 year child; that only 13½ millions will ever show superior intelligence, and that only 4½ millions can be considered talented.

These tests, moreover, suggest a permanent inequality due to family, race, or physical equipment, and not removable by education. Two American authorities, Messrs. Popenoe and Johnson, express the following opinion :

No matter what trait of the individual be chosen, results are analogous. Whether it be speed in marking off all the A's in a printed sheet of capitals, or in putting together the pieces of a puzzle, or in giving a reaction to some certain stimulus, or in making associations between ideas, or drawing figures, or memory for various things . . . or success in any one of the hundreds of other mental tests, the conclusion is the same. There are wide differences in the abilities of individuals, no two being alike, either mentally or physically, at birth or any time thereafter.

These results, which have suggested the most disturbing and uncomfortable doubts in the minds of thinking Americans about the validity of those principles of equality on which all their institutions are founded, may also help to explain how vast crowds may be led to their own destruction by a few designing and fanatical agitators. Lothrop Stoddard in his book *Revolt against Civilization* (1922) goes so far as to formulate 'an iron law of inequality.' 'Nature herself,' he says, 'having decreed him incivilizable, the Under-Man declares war on civilization.'

If these American reports may be allowed as representative there is probably a vast stratum of people in every nation which is either passive or resents what is to it the overstrain of civilization. But there are, besides, the actual enemies of civilization who know how to work upon this mass. Boris Brasol in his scientific study of the *Elements of Crime* (1927) explores these 'delinquent strata of society,' inspired by a common hatred of civilization. He argues :

The professional criminal cannot stand alone amidst a society which he hates, and which in turn is hostile to him. Verily, isolation is a dangerous state for a person who ventures to challenge the social order. He is therefore compelled to co-operate with those who, by reason of their own morbid propensities and immoral conduct, are dwelling in discord with society.

Revolutionary doctrine, according to Brasol, makes a definite appeal to this delinquent class, and the bloodthirstiness of a good deal of Communist and Socialist propaganda goes to support this position. 'Le couteau entre les dents!'—'With your knife in your teeth!'—is the cry of the French Communist, Henri Barbusse, and we find this strain of ferocity through revolutionary literature. Thus Babeuf (see page 4143) planned the assassination of 'all civil and military employees, all government agents and magistrates.' Says Brasol :

Proudhon, Kropotkin, Reclus and Babeuf may not have contemplated the unfortunate consequences which their writings have caused in the minds of their undeveloped, under-aged, and often half-illiterate pupils. These theoreticians might have earnestly believed that dynamite and murder are capable of

bringing about social equality and universal happiness. Be that as it may . . . the inflammatory demagoguery of these apostles of anarchy appeals to the egocentric emotions slumbering in all men, nourishing the lowest bestial instincts which, at times, reach the degree of a psycho-pathological obsession . . . Once acquired, the feeling of anti-social irritation steadily grows in its intensity and ultimately generates a species of anthropoids who aim at the complete destruction of civilization, and thus become the vanguards of international criminality.

In normal times, when life is settled and employment good, society is commonly too strong for these rebels, who show their presence only by some sporadic act of assassination; but the strains of war, the sufferings and passions which it lets loose upon the world, expose the weaker side of civilization to attack. The great mass of the neutral and the ignorant, driven almost to despair by poverty and unemployment, are easily affected by crowd impulses of rage and hate, and if the government is, as we frequently find it, weak, vacillating and cowardly, all the disciplines and restraint of civilization may give way, the organized system of livelihood by which all live together may break down, hunger and panic may add force to the convulsion which rocks society, until the whole structure is brought crashing to the ground.

When civilization itself fell in Russia, it is not surprising that it was shaken in western Europe. We

Departures from Democracy have seen that Benjamin Kidd looked upon democracy, and what he grandiloquently called 'the enfranchisement of the future,' as the most permanent, valuable and characteristic part of modern civilization. The Great War was fought, or so we were told by the politicians, 'to make the world safe for democracy.' Yet, second only to the abandonment of civilization itself in Russia, the destruction of the democratic system of government over a large part of western Europe is one of the most impressive features of the post-war period.

The truth would seem to be that systems of government, which to the few assume almost the sanctity of religion, to the many are tested merely by their power to govern. In the easy times before the war the flattering fiction of

'government of the people by the people for the people' had been generally adopted in various forms, and under different constitutions, throughout Western civilization. It had led in practice to governments composed of men apt in the demagogic arts, fluent and skilful in the use of words; but ill equipped for the stern business of defending the nations they governed in a life and death struggle, whether against national enemies or the forces of disorder and anarchy.

Thus in Italy a weak and corrupt government of professional politicians brought themselves into hatred and contempt by their mismanagement of the war, and looked on helplessly **The Italian revolution** at the disorder sloping down into chaos which followed.

The enemies of civilization, grown bold like wolves in a hard winter and hunting no longer alone, but in packs, terrorised the population of northern Italy: Anarchist outrages grew more frequent and more terrible until the crisis came in Milan on March 12, 1921, when a bomb thrown in the Diana Theatre during the last act of a musical comedy killed seventeen people and wounded a great multitude. Strike followed strike, culminating in a general strike which was in fact an attempt at revolution; factories were seized; shops were looted; trade was disorganized, and the ordered life of the community brought to a stand.

The revolt led by Benito Mussolini (see page 4896) was in every way in notable contrast to the revolt led by Lenin in Russia. By a strange coincidence the two men both belonged to what is called the 'revolutionary intelligentsia,' and both had sought refuge in Switzerland from a social order which they found oppressive in their own countries. But there the analogy ends. Lenin governed 'against the hair'; Mussolini expressed and embodied the national will. Neither the doctrines of Karl Marx nor the philosophy of Rousseau had ever appealed to the Italian people. Mussolini expressed the Italian sense of order inherited from Rome; he believed in power, which the Italians respected; he disbelieved in democracy, which the Italians despised; but above all he delivered Italy from a

system of government which the Italians well knew to be corrupt and effete. Events in Spain followed a somewhat similar course, and teach a similar lesson.

Thus in Italy and Spain that constitutional system of government which had been hailed before the war as a universal principle destined to govern the whole world was swept away not merely with the acquiescence but the gratitude of the nations concerned. It went not by an act of tyranny, but because in practice it failed to secure the order and discipline, the law, justice and good administration, necessary to national well-being. And when we go farther afield we find these warnings reinforced in various directions.

In Russia the attempt to create an elective duma was a disastrous failure; Greece, which once boasted of its constitutionalism, lives by a series of bloody revolutions. And that boasted work of Allied statesmanship, the democratic con-

stitution of Jugo-Slavia, was brought to an end at the beginning of January, 1929, by King Alexander after an ignominious life of barely ten years. Asia takes even less kindly to the principle of popular government. In Turkey hardly the pretence of popular government remains. The well meant efforts to impose it upon India in moderate doses have led to such convulsions as should make one dread its wider application. In Afghanistan the liberal reforms of Amanullah brought his throne tumbling about his ears. In China, whose constitution was hailed as the dawn of a new era in the East, it speedily degenerated into mere misrule and civil war, and it is too early to make any calculations on the unstable equilibrium of the Nanking government. Even in Japan, according to a disillusioned Japanese (the poet Gonnoské Komai), 'the masses are led to believe that there is scarcely any difference between the



'IL DUCE': BENITO MUSSOLINI WITH HIS CHIEFS OF STAFF

Benito Mussolini began his political career as a socialist, but modified his views as a result of the Great War, in which he fought in the Bersaglieri. In 1919 he organized the Italian nationalists into a society known as the Fascisti, popularly known as Blackshirts, with the purpose of stamping Bolshevism and extreme Socialism out of the country. After 1922, when he was appointed premier (see page 4896), he rose to supreme power as the recognized exponent of the national will and spirit.

Photo, E.N.A.

governments formed by Conservatives, Liberals, Coalition or Labour. They all seem bent on squandering people's money in spite of cessation of war-time excitements and necessities.' Egypt also does not appear to have profited by those essays in the popular system which were hailed with so much hope and eloquence. The Great War, which was to make the world safe for democracy, has led to its downfall in so many places as to leave all but its most enthusiastic exponents somewhat shaken in their belief in its efficacy.

In Great Britain, either because the fabric was stronger or the people more phlegmatic, the social

The position and political results were in Great Britain less violent in appearance, yet here also the storm of war started many seams, economic and political, so that despite every effort to pump the hold and stop the leaks, the ship of state lies visibly lower in the water.

Fortunately for Great Britain her system of food supply did not so far break down as to produce the breach between town and country which we saw on the Continent; but there were other fissures hardly less disastrous. In most countries ancient racial divisions show themselves under more recent national unions. Thus in the unified group of the British Isles the politically overlaid racial division between Ireland and Great Britain widened until hardly a ligament remains between the two.

With this perpendicular fissure there went many lateral strains hardly less threatening and disastrous. In Ireland itself the national appeal covered an anti-social movement directed against law and property. In Great Britain fierce and continual agitation culminated in the great coal strike and general strike of 1926, directed not so much against industry as against the state and society itself. These disorders were not suppressed by force as in Italy and Spain, but were soothed and diverted by measures of palliation and compromise. From the beginning of the Great War until the present time, a long series of expedients—the shortening of hours, the raising of wages, state subsidies, unemployment allowance and poor relief—averted im-

mediate trouble by some change in the economic or social balance, and these measures were accompanied by two enormous extensions of the franchise.

As the working expenses of a country must in the end be borne by the industries which produce its wealth, these measures increased the cost of production, and, as the cost of production determines the struggle for survival among nations, intensified the troubles they were designed to cure.

A Treasury return issued in November, 1927, showed that the expenditure on social services had increased from £22,644,334 in 1891 to £351,515,957 in 1926. But this is only part of the sum, since besides the contribution of the state, which is met by taxation, there is the direct cost to industry itself. A parliamentary committee under the chairmanship of Sir Arthur Balfour gave the following estimate of the cost per head of five social services in the various industrial countries of Europe. Thus:

	£	s.	d.	Per cent.
Great Britain	3	18	6	100
Germany	1	17	6	48
France	0	13	0	17
Czecho-Slovakia	0	11	0	14
Belgium	0	5	6	7
Italy	0	3	6	4

It is not surprising that industries thus overburdened were disabled in their power of employment. In 1925—seven years after the War—the average weekly figure of unemployment for Great Britain still stood at more than 1½ millions, and on January 28, 1929, the total number of persons on the registers of the unemployment exchanges in Great Britain was 1,394,190.

As the beneficiaries of the various social services (including free education) constitute the great bulk of the nation, a great part of the people are interested in maintaining a system which is draining the national resources. The extension of the franchise has thus a close bearing on the economic position, since it places in the hands of those partially or wholly maintained by the state the power to increase the benefits which they enjoy and the costs of which are borne on the shoulders of others. And the politicians who impose

these measures of relief are tempted to extend the franchise in order to reap the precarious harvest of political gratitude. Thus the increase of the national expenditure and the extension of the electorate are apt to go together.

The Reform Act of 1918 added nearly 13 million voters, including nine million women, to the parliamentary register. The Reform Act of 1928 was designed to add 3,650,000 women over the age of 25, and about 1,590,000 under that age, or about 5,240,000 new women voters. The total electorate in 1924 was 21,731,320 and with the latter addition substantially exceeds 27 million.

Can democracy bear the strain of its own extension? J. J. Rousseau, arch-priest

and prophet of the system,

The future conceived of a state small
of Democracy enough for the people to
know the representatives

and for the representatives to know the people. But the great modern growth of population makes this mutual knowledge more and more difficult. And not only is there this difficulty of mere numbers. The theory of democracy postulates a more or less static population, all knowing and all more or less concerned in one another's affairs; but modern life tends both to mobility and specialisation. A large part of the electorate may not even do its business in the constituency in which it resides, and one part of the electorate may be entirely ignorant of the interests of the other. Democracy may have been easy in the small and simple state of Athens, but becomes increasingly difficult in the complex and multitudinous life of the modern nation.

It is, indeed, difficult to compare one democratic system with another, since in most cases not only is the franchise different, but there are wide differences in the powers conferred upon the popular assemblies. In Germany and the United States, for example, there are federal systems by which the powers of the central government are limited by the powers of the states; in Great Britain and France the governing power is unified, so that there are no state rights to act as a check on central authority. Even in the British Empire, while there is a unified

system in the mother country, there are federal systems in Australia, Canada and South Africa, and in each of these federal systems the allocation of powers is different, to say nothing of the various checks and restraints of the different bicameral systems and the powers of referendum and dissolution.

All these varieties of system make comparison difficult; but it may be said generally that with the growing complexity of political life power tends to pass into the arcana of the political machine. The party organization encroaches upon the province both of the electorate and the member; it may even assume the powers of government, and may influence and corrupt administration. So far from the people freely electing their own representatives, they have frequently no alternative but the nominees of the political organizations, and the struggle resolves itself into a contest in which the power of the rival machines plays a decisive part.

There are other difficulties in the way of those who regard the enfranchisement of the future as the goal of humanity. Whereas Rousseau laid it

down that men were born free and equal but are
everywhere in chains, the
modern ethnologist arrives at a con-
trary conclusion. So far from man
having been born free, slavery was an
institution almost universal in the early
stages of civilization, and was perpetuated
until supplanted by the wage system.

Neither are men naturally equal. Not only have individuals of the same race widely different equipments of character and mind, but there are differences even wider between one race and another.

The relations between Europeans and Africans, both in the United States and in Africa itself, make a case in point. Starting with the coast as a base, the white man has spread over large regions of South and East Africa, especially in the high interior plateau where the climate is temperate and suitable. In the Union of South Africa alone there are now close on 1½ million Europeans. This population governs itself on democratic lines; but the native population of five millions upon which it is superimposed it governs, so to speak,

patriarchally. Only in the Cape Province is the native admitted to a limited franchise, and members of both houses of the Union legislature must be British subjects of European descent. The principle of equality is denied both in life and in government. 'We are to be lords over them,' said Cecil Rhodes when he was prime minister of Cape Colony. 'Treat the natives as a subject people as long as they are in a state of barbarism and communal tenure; be the lords over them, let them be a subject race, and keep the liquor from them.'

This will always be the point of view of a higher race when it feels itself threatened by a lower. When, after the Civil War in America, the political theorists of the North, who had then no negro problem, tried to impose upon the South an electoral equality which would have put the negro in power in some states, the white minority applied the unconstitutional remedy of the Ku Klux Klan; the stronger race in its instinct to dominate and to rule terrorised the weaker and drove it from the polls (see page 4493). However the political moralist may condemn this attitude, it is in vain to quarrel with that racial instinct which is one of the strongest impulses in man. The negro has been liberated and educated; but the natural and inherited difference of equipment remains.

We may say in passing that nature appears to be settling, in her own quiet way, this negro question

Negro problem in America in the United States. Although the actual growth of the negro population in America is from three-quarters of a million in 1790 to 10½ millions in 1920, the percentage of negroes to whites goes on steadily declining; whereas in 1790 it was 19·3, in 1920 it was 9·9, and whereas in the ten years following the first census of 1790 the increase was at the rate of 32·2, in the decade up to 1920 it was only 6·5, and even in the South, where there is little immigration from Europe, the whites have been increasing faster than the blacks. Although there has been a considerable migration of blacks from the South to the North, it does not affect the main problem. A. P. Brigham, from a careful examination of the figures, con-

cludes that the black is nowhere swamping the white population, and Professor Wilcox holds that the negro population, which was one-fifth of the whole in 1790 and one-tenth in 1920, will decline to one-twentieth by the end of the century.

It has been suggested that there may be a lurking error in the view that the extension of democracy is part of an inevitable and universal march of progress. It might even be dangerous to assert that there is any general line of progress at all. Rudyard

Is there a

Kipling claims as one of the virtues of classical

Law of Progress ?

education that it restrains us from the illusion that the world is progressing 'when it is only repeating itself.' The theory of evolution itself contains no such assurance, since evolution is not a progress in any straight line but a process of adaptation to environment. We know too well that many civilizations have fallen to be assured of the permanence of our own.

We have seen that Western civilization has certain lines of weakness, some of which we have examined—the growth of population, the concentration in cities, the 'ugliness' of industrial life which offended John Ruskin and William Morris, the contrasts between poverty and wealth which gave point to the Marxian attack on society, the conflicts of class, race and nation in the eternal struggle for existence—all these and others contain elements of danger to the stability of civilization.

Yet it has been comforting to note also that the problems which appal one generation are found to be soluble by the next. Take, for example, the chief of all human problems, the growth of population. Unchecked, according to the Malthusian 'law,' man increases in a geometrical ratio, whereas his power to produce the means of life grows only in arithmetical proportion. If this be nature's iron rule, then indeed mankind is doomed to eternal or ultimate famine, pestilence and war as the only ways out.

On the other hand, the race or nation which seeks to limit itself by methods of birth control finds itself threatened by less restrained neighbours. Thus France, which has long maintained a population

approximately equal to her limited means of subsistence, found when attacked by the swarming invaders of Germany that she had an insufficient margin to supply her losses in the field. In consequence she was fain to open her doors to other European nations which greedily filled the places of her unborn and her dead. In 1925 the foreigners in France numbered two and a half millions, or 6.4 of the total population. The Italian immigration into France increased from an average of 48,428 for the years 1920-21 to 80,845 per annum from 1922 to 1925. And Italy is inclined to press the advantage, if we may judge from Mussolini's declaration that she must raise the birth-rate, lower the death-rate and restrict emigration so as to attain a population of sixty millions. Thus the nation or class which limits its natural increase lays itself open to attack and supersession.



VICTIMS OF UNEMPLOYMENT

Even in districts where mines were kept open distress was acute owing to reduction of wages. Elsewhere unemployment reduced thousands to penury, relieved by the national system of Poor Relief and Unemployment Insurance.

Photo, Special Press

Here then would seem to be an insoluble problem; but, as we have already seen, there are other factors, unknown to Malthus, which are opening a way out. The progress of invention also proceeds in geometrical ratio, and one discovery may increase man's means of livelihood a thousandfold. Take, for example, the progress made in perfecting early and frost-resisting wheat which opens out the vast prairie lands of the north for the production of food; or the spineless cactus grown by Luther Burbank to provide a succulent pasture for cattle in the arid regions of the south; or the new methods of dry-farming and extension of irrigation which are making the desert blossom as the rose.

So in other fields. The manufacture of artificial silk makes it possible to turn the waste products of the jungle into fine raiment; the study of tropical diseases offers hope that vast regions now dangerous to mankind and his domestic animals may one day become his most fruitful farms.

It is true that the United States have seen reason to limit the invitation inscribed at the base of the Statue of Liberty, 'Send us your huddled masses, yearning to be free'; but there are great areas of the earth's surface, in Canada, in South America and in Africa, which still remain undeveloped. The inventiveness of man and the prodigality of nature make a marriage so fruitful that it seems cowardly to set limits to the expansion of humanity.

Its concentration in cities and the ugliness of its industrialism may also be passing evils, bogeys of the feeble and faint-hearted. The development of the motor car, the transmission of electric power, such inventions as wireless and the gramophone, are forming a new balance of town and country before our eyes. The class hatred which was nurtured by these passing conditions may be mollified, as we have noted in the case of America, by improved industrial relations. Despite the agitators, 'capital' and 'labour,' which are the component parts of one interest, are arriving at their own *modus vivendi*.

**Solutions for the
population problem**

THE PHILOSOPHY OF HISTORY

A Discussion of the Belief in a Law of Progress
and its Value as a Factor in Human Development

By L. P. JACKS

Professor of Philosophy and Principal of Manchester College, Oxford; Author of
The Alchemy of Thought, etc.

THE word 'progress,' like most words that have come to play a prominent part in philosophy, is obviously a figure of speech, or metaphor, based on the idea of walking or marching. 'Progredior,' the Latin word from which it is derived, means to step forth, and the frequent use of the phrase 'steps of progress' in the modern literature of the subject shows that the idea of stepping or marching towards an objective has not been lost. The idea of an objective towards which the stepping or marching is directed is indicated, of course, by the prefix 'pro.' Whoever speaks of 'progress' shows that he has drawn the distinction between forward and backward, and knows, or thinks that he knows, which is which.

'The march of progress,' another phrase in common use, reveals the image in a somewhat fuller form. It implies not only that each of the marchers has drawn the distinction between forward and backward, and knows in which of the two directions he is moving, but also that the marchers have come to an agreement on the point; a march being a concerted movement and obviously impossible if the 'forward' of one marcher is the 'backward' of another, or if forward and backward can interchange their meanings. Unless the distinction between forward and backward can be drawn it is therefore idle to speak of *progress* in any connexion whatsoever. We shall find that all the difficulties which the philosophy of history finds in the idea of progress turn on the drawing of this distinction.

How great the difficulty is may be seen in a remark of the historian Freeman: 'In history every step in advance has also been a step backwards.' This seems

to indicate that whether a given movement in history is to be regarded as progress or the reverse depends on the point of view of the observer. Examples of progress are apt to become examples of regress when they are estimated in terms of what they cost to achieve. Thus, when a higher civilization rises on the ruins of a lower, it is always possible to argue that the lower would have done better in the long run than the higher which has crushed it out, if only time enough had been given it to develop its possibilities.

Moreover, the end of all things must be kept in mind. And if the end of all things human, in a future no matter how distant, be the extinction of the race, as astronomers and geologists predict, it would follow that what we called progress while we were actually engaged in it would have to be otherwise estimated when the final catastrophe had taken place. Strictly, a movement which begins in nothing and ends in nothing can be called neither progress nor regress, however interesting the historical transactions may be which occur in the interval between the two 'nothings.'

If, for example, we had two worlds, one beginning at the point of highest perfection and then passing through a slow and gradual decline to the lowest point of imperfection, and the other beginning at the lowest point of imperfection and rising by slow and gradual advance to the highest point of perfection, it would be the same history in either case, with the order of the chapters reversed; any being who had lived continuously through the history of the one world would have encountered the same series of events as if he had lived in the other.

But this we are apt to disguise from ourselves by crediting our Golden Age, Utopia or Kingdom of Heaven with an infinite 'staying power.' We take it too readily for granted that the consummation we desire, once established as an achievement of 'progress,' will maintain itself automatically as long as we choose to imagine. But the Golden Age cannot be defined in any terms which do not leave it a precarious age for man to live in. The Greek poet Hesiod showed his perception of this by placing the Golden Age at the beginning, and in reading history as a lesson in the tendency of human nature to decline from its best.

Certain it is that the conditions which make perfection hard to win make it hard also to keep. The believers in progress have not sufficiently considered that the tendency of human nature to advance towards the best has its counterpart in a tendency to decline from the best when it has been attained. After all, it makes little difference whether we put the Golden Age at the beginning or the end of any historical process; for if we place it at the end it is still only the beginning of what is to come next. And what is that?

In estimating the value of the belief in progress as a factor in human history, it seems an obvious remark that such a belief helps to accelerate the progress believed in; in other words, that an age or society which has the belief, as our own appears to have, will progress more rapidly than an age which has it not. Even if the idea be an illusion, or a superstition, it may yet be valuable as a kind of tonic for keeping up the courage and vitality of social effort, especially in times when without it men would be inclined to despair. In that sense we may say that no effort would ever be consciously or deliberately made by man unless the belief in progress was at the back of it. Every such effort implies the postulate, in the mind of the man who makes it, that he himself or somebody else will be better off after the effort has been made than he was before.

The belief in progress, so understood, is in fact a psychological necessity for

all action that is consciously directed to an end. It may even be said to sustain the suicide in putting an end to his life. It will be better for him, he argues, not to be than to be; or, society will be better off, he may think, when he is no longer here to trouble it, and will 'progress' to the extent represented by his removal. In the same sense the belief in progress must have been present at the moment when the human will, emerging from the instincts of the ape, made its first conscious selection of any line of action whatsoever, though the idea of progress had not yet detached itself and received a name. Since then all that has happened to the belief in progress has been a fuller articulation of its meaning through conscious reflection.

Whether this fuller articulation of the idea has actually increased the power of the belief as a motive of human conduct is a question not easily resolved. The well known saying, 'the healthy know not of their health but only the sick,' is not altogether untrue, and may possibly have its parallel in this connexion—'the progressive know not of their progress but only the unprogressive'; a consideration that has prompted more than one cynic to remark that whenever an age or a party calls itself progressive, hypocrisy is at work.

The study of history does not confirm the belief that the ages when most progress has been made were always the ages in which progress was most talked about. Man was a progressive being long before the idea of progress received a name, which happened, according to Dean Inge, when Lucretius wrote his poem *De Rerum Natura*. It may be reasonably contended that the most important steps of man's progress took place not when the printing press or the steam engine was invented, but when the use of fire was discovered, or even earlier, when men began to guide themselves by intelligence instead of instinct.

In general, it can hardly be doubted that the invention of man's simpler tools presupposes a degree of intelligence in the early ages which invented them

Value of a
belief in Progress

not less striking than is revealed by the invention of complicated modern machines; while the early forms of law and order, as we find them in Egypt, Babylon or China, are fully as significant in view of their after-effects, and betoken as high an intellectual and moral endowment in their authors as any that later ages can claim.

On the other hand, the habit of reflecting upon progress and discussing it has unquestionably served to spread the conviction that progress is a duty imposed upon individuals and societies, and that it ought to be continually attempted. It has greatly stimulated the desire for conditions better than those in which the human race finds itself immersed at the moment, and has aroused wide-spread inquiry about the final end to which progress should be directed; a point still unsettled in any common agreement, but needing to be settled before concerted action can be organized.

Most important of all, among the effects produced by reflection on this idea, is the growing perception that without concerted

action, organized on a world-wide scale and under a definite conception of the end to be aimed at, progress cannot be achieved in the modern world. The empty paeans on the mere fact of progress, which were characteristic of mid-Victorian times, have thus changed into a more serious search for some principle of unity among classes and nations, the belief being that when this is attained mankind will be able to progress to what heights it will.

Along with this belief there generally goes, in the writings of those who represent it, a warning note that without a common principle or ideal the outlook for the future is extremely dark; and from this attitude we may gather that the conception of progress as a law of human history, fulfilling itself automatically no matter what men may do to promote its action, has been largely abandoned. Indeed, the very fervour with which believers in progress throw themselves into their propaganda shows conclusively that they look on progress as something which needs all their efforts to sustain it.

It might be contended, of course, that

progress is a movement that must go on in any case, but will go on all the faster if human beings put their backs into promoting it; the forward movement being guaranteed by the constitution of the universe but the rate of advance depending on human effort. This, however, as we shall see, is not a philosophical view. Whoever controls the rate controls the movement altogether.

The conception of progress as a law of nature, or an inevitable process, was expressed by Turgot in a famous saying uttered some years before the French Revolution: 'The total mass of the human race marches continually, though sometimes slowly, towards an ever increasing perfection.' Equally confident are the statements of Herbert Spencer: 'Progress is not an accident, but a necessity'; 'it is certain that man must become perfect'; 'the ultimate development of the ideal man is certain.'

If we believe this, what is likely to be the effect on the course of history? The answer is not easy. When the mid-Victorian pagans about the 'progress of the species,' on which Carlyle used to pour out his scorn, were at their height, John Grote, in his *Examination of Utilitarian Philosophy*, put forth an extensive argument which has now become a commonplace of philosophy, to show that the logical effect would be to induce a blind and sterile confidence that the universe might be safely left to look after its own evolution.

But this, though it is unquestionably the logical conclusion, is not the whole truth of the matter, nor is it safe to assume that the logical conclusion is the one that men have drawn or are likely to draw from premises so cheerful. There is a certain exuberance about the doctrine which is infectious. It brings vitality and cheerfulness into the general atmosphere, and gives one the feeling of being in a universe that is really worth while. The total effect of that is probably much more in the direction of increased activity, increased enterprise, increased desire to do good, than in the direction of indolence.

Oddly enough, however, the same seems to be true of the opposite doctrine, as set

forth by Huxley in his Romanes Lecture. According to this thinker the course of nature is in opposition to everything that can be called progress from the point of view of our moral ideals. This, again, will be found exhilarating or depressing according to the temperament of those who receive it. The brave will be stung by it to a greater heroism, while the cowardly will show themselves the better logicians by promptly running away. For, if it comes to a stand-up fight between man and the universe, there can be no question which side is going to lose. Yet on the whole there is an emotional stimulus about Huxley's doctrine, like that of a drum beating for battle, to which many would respond even while their intellects told them that they were fools.

From all this it seems a reasonable conclusion that the effect on human conduct of Turgot's and

Rival doctrines result in nothing Spencer's optimism and of Huxley's pessimism would be much the same in the long run. In neither case, however, does the effect appear to have been very great, either in speeding up or in slowing down the energies of the human race. Turgot's comfortable and soporific doctrine was almost immediately followed by the immense upheaval of the French Revolution, and by the desperate social struggles of the nineteenth century, in all of which there was nothing to indicate that the nations of Europe were at all disposed to sit still with folded hands and trust the 'law of progress' to remove the causes of their discontent; while the years that intervened between Huxley's heroic defiance of nature and the outbreak of the Great War were as unheroic as any in European history.

This, however, is not surprising. For a deeper examination of the two positions—the one affirming progress as a law of nature, the other denying it—shows that they are not so far apart as their outward contradiction suggests. Both doctrines, in fact, are prompted by the desire for progress and rest upon the belief in its possibility. Huxley is as much concerned as Spencer that man should improve his lot by the realization of his moral ideals, and in giving us the advice he deems neces-

sary for that purpose—to oppose the process of cosmic evolution rather than to follow it—he shows his belief that human progress is possible, at least up to a point, provided that we rouse the heroic energies needed to achieve it.

On the other hand, Spencer and the optimists in general, when they urge us to fall in with the law of evolution and model our own actions upon it, are virtually making human progress depend not on an inevitable law of nature but on our willingness to act as they advise us to act. 'Accept our views about evolution and act upon them,' they say in effect, 'and the gradual progress of society will follow. Reject them and act upon the rejection and we cannot promise that the desired progress will take place.' So much we may fairly say is implied by the immense pains these thinkers take to convert us to their point of view. A law of progress whose working thus depends on our willingness to fall in with it cannot in strictness be called an invariable or necessary law, at least so far as human affairs are concerned.

It may be said, of course, that while the general fact of progress is assured by the law of evolution the rate of it in human history depends on the degree of assistance which men are willing to lend to its operations. But this, as we have said above, is a contradiction. If a traveller is going from London to Edinburgh, by going slowly enough he can prolong the journey to eternity, and never reach Edinburgh at all; while, on the other hand, there is no fraction of a second so short but that, by a sufficient acceleration of his pace, he could reach his destination in a shorter.

This may serve to remind us how futile all interpretations of progress become which read the meaning of it solely in terms of the goal arrived at—Kingdom of Heaven, 'far off divine event,' and so on—but take no account of the time occupied in getting there, and of the transactions that take place between departure and arrival. If the pace be infinitely retarded, the goal is never reached; if infinitely accelerated, the interval between goal and starting point

vanishes, and the idea of progress from one to the other becomes meaningless.

Unless this point be borne in mind our judgements on the course of human history are apt to suffer gross perversion. By assuming that progress is compatible with any degree of slowness that we choose to assign to it, the difference vanishes between the causes that further and the causes that hinder the interests of mankind. Make your conception of progress sufficiently slow and the greatest crimes of history can be accommodated to it as easily as anything else, Judas as easily as Christ. Nothing, in fact, could impugn the idea of progress when so conceived. If the whole world were to break out into cruelty and violence and every civilized nation fall back into barbarism we should only have to say that progress was 'slower' than we previously thought, and that we should have to wait so much longer for the promised millennium.

After all, the only kind of progress in which the human race can take an interest, or which can properly be called human progress, is the progress

The factor of Responsibility which men themselves are responsible for achieving.

Were some power not our own perpetually engaged in turning us into better men, whether we willed it ourselves or not, the phrase 'better men' would cease to have any meaning, the word 'man' connoting just that element of responsibility for his own condition which on this hypothesis would not exist. Goodness, beauty and truth are values for us only so far as we are engaged in winning them by our own efforts and at our own risk.

A process of evolution which is automatically turning us all into angels is morally indistinguishable from one which is turning us all into devils, since the angels who emerge from the one process deserve no more credit for their angelic nature than the devils who emerge from the other deserve blame for their fiendishness. 'Poor devil' would be the proper phrase to apply to both of them, since neither could help being what they are. Our condition would then be like that of a block of marble which the sculptor is working up according to his

lancy, with the addition that in our case we are conscious of what the sculptor is doing; but it is hard to say what difference it would make to us whether he was turning us into statues of gods or into statues of beasts.

The same may be said, *mutatis mutandis*, of all evolutionary doctrines of human progress which represent it not as an affair of sudden leaps from bad to good, but as a slow Progress and gradual improvement Environment brought about by the slow and gradual action of improving 'conditions' or environment. Wide-spread as the belief now is that the causes of progress lie in the environment, and fond as we are of saying that the improvement of mankind depends on the improvement of conditions, it may be seriously questioned if any of us would accept that doctrine as defining the terms on which he himself would wish to become a better, or even a happier, man. To tell a man that he cannot become a 'better' man unless the forces of his environment conspire to make him so, is almost to insult his self-respect.

This aspect of the idea of progress, as a change for the better brought about by the action of environment, is commonly overlooked, owing to the habit people have of applying the doctrine to others and forgetting to apply it to themselves. They apply it to the poor, to the uneducated and to those in general who are less fortunately placed than they. It seems an act of charity to attribute the shortcomings of these unfortunates to their 'conditions' or to their environment. But if the dependence of character on conditions be true at all, it applies equally to those who stand in the vanguard of progress as to the remotest straggler in the race, to those who win in the battle of life as to those who lose, and would require the fortunate ones to say that their own victories, like the defeats of those whom they pity, have been won not by them but for them, by a favourable environment.

Putting all these considerations together we shall find that little difference is made whether we assert a law of progress in the sense of Spencer and other evolutionists, or whether we deny it in the

sense of Huxley or of Bertrand Russell or of Dean Inge. It is clear that the law of progress can be counted on to work only on the condition that men in general believe in it and fall in with it, which, as the arguments of Huxley, Bertrand Russell and Dean Inge clearly show, all men are not disposed to do. That such a refusal to believe is a possibility with which to reckon, and which, if realized, will give the law of progress a serious set-back, is clearly shown by the vehemence with which the school of Spencer argues for the existence of that law.

Both groups of thinkers end, therefore, on the same note and leave us at the same point, namely, this: that progress is possible if we prove teachable and act wisely, but not possible if we prove unteachable and play the fool. They differ, of course, in their conception of

what wisdom consists in, and of what playing the fool consists in, Dean Inge's conception being no more identical with Bertrand Russell's than it is with Herbert Spencer's. They differ also by the fact that whereas in Huxley, Russell and Inge the inevitability of progress is formally disavowed and its contingency avowed, in the Spencerian group it is the other way about. But these differences do not amount to very much in view of the common agreement of both groups that progress, so far as we may hope for it at all, depends on our believing what they have to tell us and acting accordingly.

At this point several difficult questions present themselves. Though both the groups mentioned above seem to be agreed that human progress will not take place unless people generally believe in it and act accordingly (and no guarantee can be given that they will), it does not follow from this that progress will take place if they do so believe and act. Indeed, both Huxley and Dean Inge remind us fairly often that in spite of our heroic defiance of the evolutionary process (Huxley), and in spite of our pursuit of the eternal values (Dean Inge), the race, if wise enough to take either line, will be completely beaten in the long run, so far as its temporal

fortunes are concerned, by the cooling down of the planet.

Here the question arises whether the name progress can be given to any process merely on the strength of victories won at intermediate stages, if the final stage, in which all these victories come to their issue, is to be total overthrow and extinction. Might we not say that the increasing splendour of the intermediate victories only deepens the tragedy

of the subsequent de- Implications of a
feats and of the final Final Catastrophe
overthrow? Is not the

evolution of humanity so regarded only another name for the road to ruin, the true nature of which we disguise for ourselves by restricting our vision to short views, and by over-concentration on our passing achievements? Ought not the 'triumphs of civilization' to be interpreted in much the same way as the victories won by the Germans in the early stages of the Great War—not as proving their 'progress' but as heralding their downfall and making it more terrible when it came?

A 'millennium' which is to last for that definite number of years inevitably provokes the question, 'What next?'; and not until that question is answered can the philosophy of history say whether the attainment of the millennium is or is not a conclusive proof of human progress. A thousand years of perfect happiness (or of any other perfection) is certainly worth having when regarded *per se*, but its value will be greatly diminished if it contains the seeds of its own death, so that in the next thousand years the race will see itself gradually deprived of the happiness enjoyed in the first. In such case the question might reasonably be asked whether the first thousand was worth having at all, whether that 'sorrow's crown of sorrow,' which consists 'in remembering happier things,' would not be more than an offset for the past joys so painfully remembered.

The rule of 'living for posterity' is not well fulfilled if these things are overlooked; if, that is, the rule takes the form of endowing intermediate posterities with happiness or with privileges which have no self-maintaining quality, and

which a later posterity is destined to have the agony of losing. May we not say, in fine, that the value of the millennium is strictly dependent on its staying power—that a millennium which is not to be followed by other millenniums as good as itself is somewhat of a cheat? The author of the Book of Revelation saw this very clearly when, after predicting the reign of the saints, he added that they were to reign for ‘ever and ever.’

John Fiske, the American exponent of Spencer, sees the same difficulty. He overcomes it in the only way possible, by defending the thesis that

Ultimate goal of Evolution the moral and spiritual values achieved by the race in the course of its evolutionary progress on earth will be preserved and continued in another life. This point Spencer himself does not make, though some have believed that they could extract it from his writings. His picture of the final goal of evolution, when human intelligence will be raised to the highest pitch of wisdom and an automatic altruism will have established itself as the rule of human conduct, leaves the mind with grave doubts as to its staying power and therefore as to its value. His assumption is that when moral equilibrium, which is the final goal, has been once attained it will naturally and inevitably maintain itself, the moral forces which have been engaged in winning it being sufficiently developed, by that exercise, to keep it in being when won.

But in view of Spencer's main doctrine, that human well-being depends on adjustment to the environment, it is hard to see how moral equilibrium could be maintained without a stable environment to correspond. But this is not to be. In course of time the solar system will run down and the race will have to face the task of adjusting itself to an environment continually changing to forms less favourable to human life, and each new adjustment will involve a new disturbance of whatever moral equilibrium may exist at the moment. What the staying power of Spencer's ‘millennium’ would be in these circumstances it is impossible to say, but one can hardly think that it could be self-maintaining.

In any case, what Spencer presents as the final goal of evolution is obviously not final. In view of what is said to await mankind in the closing chapters of its history on this planet the attainment of moral equilibrium, whatever that may mean, would have to be regarded as the prelude to moral difficulties more severe than any encountered at an earlier stage, and not as the end of all moral difficulties whatever. It is possible, of course, that the human race will have learnt the lesson of ‘dying like gentlemen’ by the time these major difficulties present themselves. But can we count upon it?

Short of that heroic temper the word progress will not be applicable to the final stages of man's history. The philosophers of that age will describe the idea of progress as an illusion in which men indulged before they knew to what they were coming. Arguments which are now used for proving the existence of a benevolent control of history will then be used for proving the existence of a malevolent one.

History to those despairing philosophers of the future will seem to tell an ugly tale. It will tell how man was

led on through a series of resounding victories, triumphs of civilization

and so on, to believe himself the heir of everlasting perfection, and how it turned out later on that he had been brought to these giddy heights only that his subsequent humiliation might be the more bitter and disastrous. ‘What further proof do you want,’ they will ask, ‘that the devil created the world?’

But, perhaps men will have learnt the lesson of ‘dying like gentlemen.’ The opinion may even be ventured that since the time of Plato, who taught that philosophy is a meditation on death, the only philosophers who have been able to throw a clear light on the evolutionary process are those who have taught mankind how to ‘die like gentlemen.’ A fine example of that manner of dying is to be found in Plato's account of the death of Socrates; a still finer in the New Testament.

Such a death involves much more than a melodramatic gesture. Those who die like gentlemen in the Platonic or the New Testament sense are those who represent

human nature at the summit of its development, so far as any summit is conceivable by us; compared with them the endlessly 'happy' are contemptible. If it be possible for one man to reach that level it should be possible for all men; and that being so, there is nothing to prevent us hoping that the last stages of man's temporal history, in spite of increasing hardships and the visible approach of racial extinction, will be more splendid than any that have gone before.

We cannot indeed assure ourselves that this will be so; man may perish as the beast-like creature he was when he made his first appearance, the doctrine 'Dying like of human progress having Gentlemen' become an exploded fiction long before that stage is reached. But we can assure ourselves that a time must come when the race will have to face the problem of impending extinction, and adjust itself thereto, either by dying like beasts or by dying like gentlemen.

Putting together all that can be learnt from the two tendencies in modern philosophy, the one apparently affirming progress, the other apparently denying it, as a law of human life, we come to the following conclusions.

There is no law in nature which compels mankind, irrespective of its own behaviour, to progress towards any particular end that may be considered desirable, such as perfect happiness, or moral perfection; and, since mankind's behaviour is an uncertain quantity, no guarantee can be given that any such end will ever be realized in the secular history of the race. There is nothing in the constitution of the universe to enforce upon anybody the belief in certain progress, or the disbelief in it, the proof being that some philosophers believe in it while others disbelieve. All that evolution has accomplished up to date, which is certainly most impressive, is offset by the possibility of a corresponding decline in the future, when the moral gains of man, which have been evolved along with all the other gains, will be by no means exempt from the danger of perishing.

But while there is nothing in the constitution of the universe upon which the

philosophy of history can pitch as guaranteeing progress in any of the forms in which we happen to desire it, we nevertheless find that the nature of the universe is admirably adapted to the purpose of beings who desire to possess themselves more and more of certain qualities named goodness, beauty and truth, or wisdom, power and love. The means are there if we choose to make use of them; our choosing to use them being an indispensable condition of their becoming efficacious. On the other hand, if the end is catastrophe the fault will be our own.

Whether the progress achieved up to date means that we are so much nearer the consummation, or so much nearer the catastrophe, cannot be determined, unless the human race is prepared to pledge itself to a certain line of action. That the human race has progressed in the acquisition of 'eternal values' may be conceded, but there is no 'Acquisition of Eternal Values' guarantee that it will continue to do so indefinitely. Looking to the past, we get the impression that while man has made a considerable use of the opportunities for progress which nature afforded him, he might have made a much greater use of them. However far he may be said to have advanced, he might have advanced much farther. It is by no means clear that he has done the best he could. Whether he will do better in the future remains to be seen.

It would thus appear that philosophy cannot apply the name 'progress' to the movement of human history save on the condition that it knows definitely how, when, where and in what the movement is going to end. Short of such knowledge of the end, which clearly does not exist, all that philosophy can say is that change takes place, that movement is going on; but it cannot affirm that the movement is forward, onward, upward or the reverse. Such adjectives are indeed freely used, even taken for granted, but they imply an act of faith, which is entitled to respect, but is not philosophical.

Even if it were possible to show (and it is not) that, up to date, progress has been made towards all the ends which man considers desirable, it would not be

legitimate to infer that the progress is destined to go on indefinitely to a perfect form of the ends in question. In the absence of precise knowledge of the end, it may be that the gorgeous flowers which the plant has produced up to date are the prelude to poisonous berries later on, that the hard-won happiness of mankind contains the seeds of coming misery, that the pleasant places at which we have arrived after so much toil are only stations on the road towards disaster.

Even if we define progress as 'the gradual change of a thing towards a completer form of itself,' and assert that every living being in the universe shows that tendency, we should still be very far from having identified the progress of man with the 'improvement' of man. For what kind of a being is man? Unless he is fundamentally a good being his gradual change to a completer form of himself offers nothing in which we could rejoice. And how can we know that he is fundamentally good unless we know that he is destined to be finally good also?—which is the very point to be proved.

The devils also—and if there are such beings we can hardly deny that the law of evolution applies to them—are changing into completer

The Change to completer forms forms of themselves; but the process can hardly be called an improvement.

Or, to take a more familiar case, why should we assume that the evolution of a 'bad' man necessarily means his transformation into a good one, rather than his transformation into a worse man than he was before—that is, into a completer form of his original bad self? We assume it because, neglecting the evidence which his badness affords, we have already the faith which asserts that, despite his 'badness,' he is potentially 'good' to begin with.

If finally the question be raised whether a real advance has been achieved in the value of human life during the period covered by history—whether, as one might say, human progress is a fact or not—it will be found that the phenomena to be taken into account are too multitudinous, too confusing and too susceptible of diverse interpretation to admit of an un-

qualified answer. That an immense number of interesting changes has taken place cannot be questioned; but there is always a danger, in estimates of progress, of getting confused between the interest we take in the changes and the real value of the changes themselves. A change which has a high value to those who inherit its fruits may have a low value, or none at all, to those who achieve it.

To the student of history, for example, industrial civilization will seem to reveal an immense advance upon the conditions of the Stone Age, and all doubts on the subject may seem absurd; but, if this same student

Difference in the point of view of history were to find himself suddenly transformed into a slum dweller or a process worker in a modern industrial city, it is not clear that he would find himself better off than the men who fought against the mammoth. There is a great difference between the outside and the inside view of such things.

That there has been an immense increase in the mass, volume or quantity of human life maintained on the planet, as well as in the complexity of its inner relations, is beyond question, and if that is all that is meant by progress there need be no hesitation in saying that progress is a fact, at least up to date. But the real question turns not upon the quantity of this life, nor upon its complexity, but upon the quality. Whether men are happier than they were depends on what we mean by happiness, and it is notorious that no term is more difficult to define. Whether they are better than they were depends on what we mean by goodness. Whether they are wiser than they were depends on what we mean by wisdom.

A surer criterion may seem to be afforded by the growth of man's power over nature as this has been brought about by scientific discovery. Here again the array of facts is most impressive, not to say astounding. But the interpretation to be placed on the facts is by no means clear. In discussing them the assumption is commonly made that nature is somehow inferior to man, so that any transference of power from the natural to the human side is a change for the better; in other words, that it is

better for man to rule nature than for nature to rule man.

This at first sight seems obvious enough. But there are philosophies that contradict it, those, namely, that teach us to order our life according to nature and to show our wisdom by submitting to her laws—notably to her law of evolution. In this way of thinking we acknowledge nature as supreme, and our definition of progress will have to be made not in terms of the power we win over her, but in terms of the power she has over us and of our willingness to submit to her. To think of progress as consisting in our growing power over nature, and at the same time as consisting in our growing submission to nature's laws, is to show that we have self-contradictory notions both of nature and of ourselves. A good deal of sophistry will have to be employed before the two positions can be brought into apparent harmony with one another.

Man has yet to prove his fitness to have power over nature, even in the degree in which he now possesses it. He certainly must prove it before claiming, as is now so commonly done,

Danger in that the acquisition of
Power over Nature such power constitutes a real advance.

And the only proof he could give would be by producing evidence that the growth of his control over nature is accompanied by a parallel growth of control over himself. Short of some such assurance it is quite conceivable that the power which man has won over nature may ultimately be used for his own undoing. Philosophers, like Bertrand Russell, who are unable to help themselves out by an act of faith are sometimes inclined to think that this undoing is actually in process.

Those who are content with the assurance that mankind is improving at the present moment, and likely to improve for some time to come, will find in existing conditions a good deal on the one hand to support them, and about as much on the other to damp their hopes. The spread of education and the improvement of its methods unquestionably promise a vast improvement of the human individual, and therefore of society as a whole. As

against this we have to set the certainty that, as the human individual learns through education to realize his own value, he will be less and less inclined to do the monotonous work on which industrial civilization reposes, no matter what wages be given him for doing it; from this refusal, when it becomes wide-spread, there may result a collapse of the whole industrial fabric.

Another sinister fact remains to be noted. An industrial civilization is a civilization that lives by work; whence it would seem to follow

that no real advance of its fortunes can take place unless there is a real advance in the quality of its work, the advance being measured by the degree of human interest which the worker takes in doing it. This interest under present conditions appears to be on the decline. While the work of industrial civilization, in the form of mass production, goes on under tremendous external pressure, it is losing inner vitality and significance for the human individual, and becoming more and more of a burden to be endured for the sake of the money wages which compensate for it. And since no exact method of compensation can ever be found for work in which the worker takes no interest, it is probable that the restlessness of those who have to do it will continually increase.

This loss of vitality in work, which results from its transformation into a mechanical process, threatens to arrest the entire process to which the alleged progress of the last century and a half is commonly attributed. It is not inconceivable, therefore, that an interlude of great and protracted misery is in store for the more civilized portions of the human race. Against all this must be set the unlimited capacity of man to deal with difficult situations as they arise, a factor in the case not uncommonly forgotten by those whose outlook for the future dwells on these gloomy possibilities. Man is a being made for the overcoming of great difficulties; and in that lies the chief hope of wise men for the progress of the human race.

GENERAL INDEX

A Conspectus of the literary contents is given in pages 3 to 6. Detailed Tables of Contents with Bibliographies appear at the beginning of each Volume

This index is designed to give direct reference to all persons, events and general subjects discussed in the body of the UNIVERSAL HISTORY OF THE WORLD, and is arranged in strict alphabetical order. It is not a classified or synoptic index. In order to save space individual items described in the course of a general study chapter are not indexed under the subject of that chapter, except where references to such items also appear in other parts of the work.

Thus, the details of medieval arms and armour which are described in the chapter on "Medieval Arms and Warfare" are not indexed serialim under the headings Armour, Arms and Warfare. Immediately following the title word in each of these headings the numbers of the group of pages concerned are given, thus: Armour, 2927-2946, plate f.p. 2926 and Arms, Medieval, 2011-56. Specific details of the subject are to be looked for under their own headings, as Bow, Cannon, Helmet, etc.

In all cases page numbers immediately following the heading in black type (without other qualifying words) are to be taken as indicating a general account of the subject or person referred to.

Illustrations are shown by figures in italics. Thus, the entry David II of Scotland, 2998, indicates that a portrait or other illustration of David II appears on page 2998 and, further, that a note or general statement about him occurs on the same page. Text references are given in roman figures thus: Bull-fight, in Crete, 6001.

A few departures from the principle of direct reference indexing are made where they are likely to be helpful to the student. Thus classified references appear under various general headings, such, for example, as Architecture, Burial Customs, Costume, Exploration, Frescoes, Painting, etc., covering the more important accounts and varieties of these subjects. From these ample cross-references lead the student to detailed references.

Aachen: see Aix-la-Chapelle
 Aahmes I, defeats Itylos, 435, 637
 —statuette of grandmother, 708
 Aahmes II, conquers Cyprus, 1011
 —death, 1010, 1087
 —Naukratis' prosperity under, 1510-1
 Aahmes, queen of Thothmes, 658, 659
 Aahmes, son of Ekhana, record of, 658
 Aahmes-nefertari, Queen, a necropolis goddess, 706
 Aaland Is., Finnish dispute, 4880
 —League of Nations and, 1928
 Aam, Egyptian Syrian slave, 647
 Aamin, desert-dwelling Syrians, 502
 A-ani-padda, king of Ur, 611
 —frieze from temple, 622
 —inscriptions, 430
 —lion's head from temple, 620
 —temple, 614, 618, 620, plate f.p. 628
 Abbas I, and eulphener, 3774
 Abbasids, account of, 2513
 —claim to represent Prophet, 2358
 —dynasty founded, 2111
 —wars, 2125
 Abhaye St. Germain, massacres at, 4172
 Abbey, Benedictine, plan, 2111
 See also under specific names
 Abbot, duties of medieval, 3419
 —St. Albans, 3417
 —St. Benedict as, 2270
 Abdallah Abul-Abbas, reign, 2411
 Abdallah Ibn Zohor, reign, 2351
 Abdallah Khan, Uzbek ruler, 3793
 Abd el-Krim, rebellion, 4890, 4897
 Abd el-Malik, Khalif, 2361
 —first Moslem edict, 2530
 Abd er-Rahman, Afghan, 4400, 4559
 Abd er-Rahman I, of Cordova, escape from massacre, 2411-2
 —Mosque built, 3268, 3270
 —reign, 2512, 3276
 —settlement in Iberia, 2410, 2417
 Abd er-Rahman II, of Cordova, 3270
 Abd er-Rahman III, of Cordova, 3276
 —mosque, 3271
 Abd er-Rahman, governor of Spain, defeat by Countess Martel, 2361
 Abd-Khila, ruler of Jerusalem, 808
 Abdul Hamid II, sultan, 4397, 4561
 —exiled, 4581
 Abdul Mejid, sultan, accession, 4272
 Abul, in Cardmon MS., 2170
 Abélard, Peter, on redemption, 3014
 —renaissance and, 3221

Abernethy, Sir John D', monumental brass, 2928, 2929
 Abiam, king of Judah, 819
 Abimelech, narrative of, 813
 Abolition Act (slavery) 1834, 4639
 Abolition Society, slave trade, 1598
 Aborigines, Australian, 209-14, 271-2
 275-9
 —Bushmen, 203-1, 208, 280-5
 —Fuegian, 259, 311-13
 —Tasmanian, 197-8, 244-5, 287-8
 —Veddahs of Ceylon, 209, 211
 See also Australian Aborigines; Bushmen; Man; Pygmies; Tasmanians; Tierra del Fuego, etc.
 Aboukir Bay: see Nile, battle of
 Abraham, father of Jews, 812
 —and Lot, significance of story, 222
 —in Mahomedanism, 3369
 Abraham, Heights of, Wolfe at, 3901
 Absolute, Tho, Indian doctrine, 1208
 —in Taoism, 1219-22
 Absolutism, Frederick II's rule of, 2812
 —Louis XIV, France, 3834, 3813
 —medieval spread, 2846
 See also Autocracy
 Abstractions, origin of names for, 323
 Abu Bekr, successor to Mahomet, 2345
 —character, 2368
 —conquests, 2345
 —conversion of Sudan, 3393
 —escape from Mecca, 2371
 Abul Fazi, Akbar's minister, 3761, 3768
 —defence of zemina system, 3780
 Abu Muslim, governor of Khorassan, assassination, 2412
 —support of the Abbasids, 3111
 Abu Obeida, Syrian campaign, 2345
 Abu Saïd ibn Abu'l Khayr, poet, 2791
 Abu Sarb, Saracen fleet created, 2348
 Abu Simbel, colossi of, 639
 —reliefs of Rameses II, 673
 —temple to Nefertari, 679
 Abusir, pyramid of Sahu-ra, 507
 —sun temples, 503, 509
 Abu Talib, Mahomet's uncle, 2370
 Abydos, artistry from tombs at, 500
 —bas relief of Seti I at, 669
 —charms and trinkets from, 499
 —Coptic hermitage near, 2276
 —first Egyptian dynasty at, 462
 —flints, finely worked, 492
 —Hittite types from, 728

Abydos—cont.
 —middle-class tombs at, 547
 —mon signs from temple of Seti, 491
 —Seti I worshipping Osiris, 618
 —statue of Osiris, 546
 Abydos, Greek settlement, 1018
 Abyla, early name for Spain, 1540
 Abyssinia, Christianity in, 1010, 1011
 —history, 3404, 3405
 —included in Punt, 680
 —invasion of Arabia, 2370
 —Italian influence in, 4560
 —Jews in, 3404
 —language derivation, 323
 —origin of name, 3404
 —Portuguese in, 3405
 —refuge for Mahomedans, 2370
 —rulers' descent from Solomon, 3404-5
 Abyssinian Church, doctrine of, 2342
 —early influences, 2637
 —history, 3104
 —professional cross, 2311
 —rattle used in services, 1011
 Acacia, Egyptian pte., plate f.p. 552
 Acaus, bishop, Monophysite controversy, 2340
 Académie Française, Louis XIV at, 3862
 Academy, of Plato, 1458, 1469, 1481
 Acadia, French colony, 3548
 Acanania, partition of, 1070
 Acelus, drums of, 1886
 Acclimatisation, of primitive peoples, 334, 472
 Achaia, after Dorian invasion, 984
 —revolt against Rome, 1774
 —a Roman province, 1682, 1696
 Achaean League, Aetolian League's conflicts, 1585, 1674
 —Antigonos Doson's alliance, 1677
 —coins of, 1669
 —fall of, 1682, 1696
 —loyalty to Rome, 1689
 —Macedonian aid, 1677
 —members of, map, 1679
 —and Myrene, 789
 —organization, power and functions, 1584, 1699
 —rise and fall, 1671-81
 —Roman treatment, 1663
 —Spartan wars, 1075, 1078, 1681
 Achaean, in Agamemnon's host, 868
 —arrival to Aegean, 736
 —in Asia Minor, 715, 837

Achaean—*cont.*

—character and history, 1031
—civilization, 986
—Cnos destroyed by, 799
—country of, 1671
—Egyptian name for, 870, 1081
—first Greek speakers, 1013
—Greeks, perhaps first, 673
—Hittite name for, 791, 870, 1031
—houses of (Cretan type), 810
—iron introduced into Europe by, 804
—life described by Homer, 845
—map showing sphere, 852
—meat eaters, 847
—military weapons, 987, 1032
—of Nordic race, 802
—origins, 870
—Races, 1111
—rival theories about, 985
—on shield from Tiryns, 801
—shipbuilding, 1049
—typical warriors, 801
Achaemenes, founder of Persian royal line, 1136
Achaemenid Empire, overthrow, 1408
Achaemenids, dynasty, growing power, 1137, 1140
—origin, 1130
—rock tombs near Persepolis, 1135, 1143, 2117, 2316
Achais, independence of king, 736
Achelous, Greek river god, 1601
Achoulean Period, culture, 147
—duration, 113
—flint tools, 27, 37, 211
—for Age relations, plate *f.p.* 220
Achilles, defeat by Caesar, 1786
Achilles, Achaean chief, 789
—Agamemnon's offer to, 838
—quarrel with, 850
—altar to Zeus Heracles, 840
—bludgeoning Patroclus, 1178
—offering limps of Iroa, 844
—pursuit of Troilus, 1011
—on Roman sarcophagus, 1932
—child of, 899, 841, 815, 1011
—at spring of Apollo, plate *f.p.* 1169
—singing Penthesilea, plate *f.p.* 1270
—spear of, 848
—summons assembly, 839
—and the tortoise, Zeno, 1454
Achiorus, Greek invasions, 1525
Achilus, campaign in Thessaly, 1630
Achela, Danish defeat at, 2423
Aconita, poison for arrows, 242
Acoustics, Great War discoveries, 4700
Aequavia, Claudius, Jesuit, 3035
Aeragas, Carthaginian capture, 1250
—Roman capture, 1670
Aere, fall of, in Crusades, 2741
—Napoleon falls to capture, 4005, 4185
—solved by British fleet, 3273
Aerobas, Egyptian girl, 556, 706
—Middle ages, 3160
—Minon, 9, 769
—Symeon, on Greek vase, 1282
Aeroinon, battle of, 2350, 2413
Aeropolis : *see* Athens
Acta Martyni, of Christians, 2184
Acts, peninsula, fortifications, 1249
Acton, a scientific unit, 5010
Actum, naval battle, 1793
Acton, Lord, on Polish partition, 3605
Acton Burnell, manor house, 3429
Actor, Chinese, in female rôle, 3517
—Greek, satyr drama, 1364
—tragic, statures, 1355
—in Roman mosaic, plate *f.p.* 2921
—status in early Rome, 2025
Acts of the Apostles, Roman officials in, 2181
Ada, captured by Shalmaneser, 879
Adad, Babylonian god, 584, 650
—Canaanite god, 822
Adad-nirari II, king of Assyria, 876
—revival of Assyria under, 677
Adad-nirari III, of Shalmaneser, 880
Adalbert, bishop, 2505
Adalbert, S., baptism of St. Stephen, 3151
Adamita, secularism, 3713
Adams, abbot, Life of S. Columba, 2088
—writings on Palestine, 2078
Adams, John, president of U.S.A., 4112
—'wholly American', 4009

Adams, Quinesy, and Lafayette, 4161
Adams, Samuel, and Declaration of Independence, 4031
—portrait, 4027
—propaganda, 4028
Adams, Act, railroad regulation, 4519
Adams, room at Broulains, 4218
Adapa, Babylonian myth, 649
Adas, victory at, 1954
Adas, the Scribe, seal, 537
Adington, Henry : *see* Sidmouth, Viset.
Addison, Joseph, Catn, 4045
—and format gardening, 1300, 4301
—portrait, 4038
Adelaide, capital of S. Australia, 4609
Adelaide, of Burgundy, marriage to Otto the Great, 3501
Aden, besieged by Albuquerque, 3535
—ceded to Great Britain, 4628
Adedatus, son of S. Angustin, conversion, 2321
Adherbal, king of Numidia, 1760
Adinari, Bocaccio, wedding chest, plate *f.p.* 3206
Administration, Roman system, 2240
Admiral, origin of title, 2378, 3805
Admiralty Islands, pilot village, 267
Admonitions of the Preceptor, Chinese text and ptg. 2550, plate *f.p.* 2553
Adobs, meaning of word, 2573
Adolf, of Nassau, emperor, charters to Swiss cantons, 3088
—election, reign and death, 2820, 3002
Adonia, equivalent of Tammuz, 584
Adoptionists, on nature of Christ, 2331, 2137
Adrian I, pope, Rome restored by, 2708
Adrian IV, pope, 2736, 2775
—Englishman, 2736
—Frederick Barbarossa and, 2736, 2775
Adrian VI, pope, 3311
—death, popular demonstration, 3247
Adrianople, battle of (378), 2108
—capture by Murad I, 3151
—capture by Russia (1829), 4203
—fall of (1913), 4582, 4583
—peace preliminaries at (1878), 4398
—recovered by Turkey (1913), 4585
—restored to Turkey (1923) 4880
—Treaty of (1829), 4263
—Turkish European capital, 2004
Adriatic, ancient piracy in, 1581, 3802
—early Greek colonies, 1058
—expulsion of Venetian custom, 3032
—coalition trade with Baltic, 619
—sand banks or 'Idol', 3020
Adultery, Babylonian punishment for, 370, 577
Adze, head of, from Ur, plate *f.p.* 529
—from New Guinea, 271
Aedil, title, allies of Rome, 1783
Aegaeon Culture, 464-70, 594-612, 757-90
—final settlements in Palestine, 809
—maps, 423, 466, 590
—'New Peoples', and 792-3, 799
—pottery from Palestine, 811
—*See also* Cossus; Crete; Minon : Mycenae; Troy
Aegean Islands, culturally subject to Mycenae, 809
—sources of civilization, 404
Aegean Sea, Egyptian seamen in, 408
—geography of, 466, 590
—home of pirates, 3802
—Troy supreme at N. end, 856
Aegimius, Heracles' service with, 983
Aegina, beehive tombs in, 785
—Cycladic influence on, 770
—Dorian Confederation against, 1303
—expulsion of inhabitants, 1240
—redaction by Athens, 1234
—temple to Aphaea, 1309, 1310, 1311
Aegisthus, and Clytemnestra, 849
Aegospotami, battle of, 1398
—Athenian disaster, 1245-1247
Aelfric, abbot of Eynsham, 2707
—'Colloquy', value of, 2108
—Old Testament illus., 2460
Aelfric, caldorman, bronze seal, 2507
—treachery, 2507
Aelfric, wife of Ethelred : *see* Emma
Aelfric, superstition of, 1902
Aelius Theon, literary works, 2170
Asla, landing in Sussex, 2271

Aelle, of Northumberland, 2522
Aemilia, region, origin of name, 2031
Aemilianus, emperor, death, 2117
—defeat of the Goths, 2116
Aemilian Way : *see* Via Aemilia
Aenss, Priant's ally, 881
—spear hurled at Achilles, 847
Aeolian Isles, home of corsairs, 3802
Aeolians, Greek colonists of Troy, 866
Aeolis, Hellenic settlement, 883
Aequi, disappearance from history, 1605
—struggles with Rome, 1252-3, 1600-2
Aeroplane, bombing raids, etc., 4811
—commercial type, 4788
—development, U.S.A., 4737
—Great War development, 4786, 4788
—Handley-Page bomber, 4823
—history, 4709
—Lindbergh's, 4738
—torpedo-carrying, 4860
—the Wright, 4709
Aeschinas, Greek orator, 1361
Aeschylus, Greek dramatist, at battle of Salamis, 1183
—compared with Sophocles, 1352
—plays and features of, 1310-50
Aesculapins : *see* Aesclepius
Aesthetics, in Victorian era, 4548
Aethelith, of Northumbria, battle of Chester won by, 2271
Aetheling, meaning of term, 2453, 2509
Aether, electrical conductivity, 4702
—hypothesis of, 4720
—modern views, 5007, 5010
Aetius, general, death, 2207
—government in Gaul, 2201-05, 2228
—suppression of barbarians, 2205
Aetolia, Greek city state, 1100
—in early history and legend, 888
Aetolian League, aid of Antiochus III invoked, 1679, 1680
—antagonism to Achaean, 1585, 1674
—coin, 1669
—constitution and power of, 1581, 1585, 1608-1672
—Macedonian wars, 1677-82, 1680
—members of, map, 1670
—and Rome, 1585, 1670-80, 1603
Afghanistan, Alexander in, 1408
—British disaster in, 4450
—a buffer state, 4157
—democracy a failure, 5080
—Kulpsides I in, 1981
—Kushshika's sovereignty over, 1081
—a 16th century cult, 3767
—westernization, 4898, 4899
Africa, Abyssinia only Christian state, 3401
—Arabic-Berber civilization, 3393, 3391
—Asiatic civilization, 3397
—penetration, early, 3301
—backward culture of tropical, 230
—British expansion in (map), 4500
—civilization, early, 3389-3402
—culture, early, 3394, 3395
—development of S. Sahara, 3391, 3391
—early idea of geography, 1532, 3392
—equatorial, post-Cretaceous, 190
—Ethiopian Christian state, 3101
—European treatment 16th cent., 3380
—as evolutionary centre, 131
—extension of name, 1173
—15th cent., end of, 3395
—representation, 3392
—15th and 16th cent. map, 3390
—Fri Mauro's map, 3370
—French aspirations in, 4558
—friction drum, 294
—geography and climate, 3389-91
—goldfields in ancient times, 3399
—granary for Roman Empire, 1995
—inter-tropical, life conditions, 233-4
—Jewish immigration, B.C., 3398
—present day communities, 3399
—missionaries, Portuguese, 3102
—Moslem states, early, 3390, 3392, 3398
—native dialects in Roman times, 1998
—natives, causes of colour, 3391
—pigmentation not confined to, 209
—early progressive inferiority, 3391
—early races, 3380
—Norman conquests, 2605
—northern peoples, 468
—Oligocene times, 193
—palaeolithic remains, 615

Africa—*cont.*

- Phoenician explorations, 1180
- physiography, 3389
- Portuguese discoveries, 3390, 3399
- occupation, early, 3390, 3398
- primeval grassland in, map, 436
- rocks, 84
- primitive man, 3380
- societies, 236
- race for, economic reasons, 395
- races of, 208
- religious practices, 210, 235
- Rome in : *see* Africa, Roman, *below*
- Saracen advance in, 2352
- 16th–19th cent. isolation, 3100
- slave trade in, 235
- sultanates in Milton's verse, 3308
- Tertiary period, 133
- tsetse fly ravages, 230
- in Vasco da Gama's days, 3380–3400

See also Boers; Bushmen; *Kaffirs*;
Pygmies; and South Africa and
other constituent states

- Africa, British W., constituents, 4630
- Africa, Central, British influence, 4628
- Africa, German E., founded, 4634
- Germans cleared from, 4772
- Africa, German S.W., campaigns in, 4753
- protectionist declared, 4641
- in Union of S.A., 4611
- African Lakes Co., foundation, 4632
- Africa, Roman province, frontiers, 1985, 1984, 1990
- incorporation of north, 3391
- map, 460
- relation to Libya, 1173
- rule, 1871, 2202
- ruins of cities, 1982, 1990–91
- Vandal ruler of, 2203
- Vandals in, 2211
- Utica capital, 1908

Afridi, long-headed type, 294

After-life, Carthaginian belief, 1020

- Confucius on, 1225
- Gaulish belief, 1528
- Eastern cults in Roman times, 2031
- Egyptian views, 1104
- Etruscan views, 1100, 1104
- Greek religion, 1384
- Iranian teaching, 1130
- Koran doctrines, 2370
- medieval views, 3014
- Platonic beliefs, 1460
- Agade, expedition to Asia Minor, 521
- inscription concerning tin, 635
- Mandaitism of, 431, 521
- Nurmi-Sin of, 429, 431, 459, 524
- Sargon of, 431, 521, 635, 647, 654, 730

Agadir, German cruiser at, 4679

Agay speakup on, 4580

Agamemnon, Achaean chief, 780

- Achilles and, 838, 850
- declared a sun myth, 873
- at great feast, 817
- in Mycenaean, 773, 774, 798
- sovereign by divine right, 871
- status as leader, 838
- Troy besieged, 808

Agamemnon, The, Aeschylus tragedy, 1349

Agapitus II, pope, 2771

Agas, Radolph, map of London, 3560

Agatharhides, of Cildas, geographical works, 2100

Agatho, pope, on nature of Christ, 2313

Agathothes, 1416, 1571–73

—portrait, 1372

Agesilaus, war with Persia, 1247

Agla, struggle for Vikaeth throne, 2208

Agilulf, Lombard king, iron crown made for, 2351

—reign, 2270

Agincourt, battle of, 2950, 3128

Agis II (III), Spartan king, revolt against Alexander, 1411

Agis III (IV), death, 1584, 1075

Aglabid Dynasty, of Tunis, 2424

Agnas S., on mosaic at Rome, 2480

Agnosticism, Huxley's term, 4622

Agra, Babur's fort at, 3784

—warden at, 3783

—centre of Mogul activity, 3784

—court of Babur at, 3765

—Delhi gate, 3771

Agra—*cont.*

- horns on mile posts, 3782
- Jama Masjid, 3789
- Jannine Tower, 3775
- Jesuit college at, 3771
- Pearl Mosque, plate 3787
- recaptured by Humayun, 3766
- Taj Mahal, 3788
- Agrarian Systems, early England, 2731
- early Roman, 1767, 1769
- modern Europe, 5072
- Agricola, British conquests, 1860, 1870
- defence system in Britain, 2111
- Tacitus' history of, 1897
- Agricultural Labourers, Black Death, effect on, 3432
- English 16th cent., 3438
- medieval conditions, 3426, 3436
- in medieval England, 3997
- rise of, 2728

Agricultural Labourers' Union, 4678–79

Agriculture, Anglo-Saxon, 2114, 2469

—of Aryan-speaking peoples, 443

—Assyrian, 389

—Babylonian, 581

—Black Death's effect, 3433

—Damascus, 992, 993

—earliest Sumerian, 156

—early attempts, 248, 285

—economic factor, 388

—Egypt, ancient, 484, 480, 487, 711

—15th cent. England, 4218, 4219

—18th cent. Germany, 3980

—15th cent. decline, 3434

—fallow rule, 2727

—first work in English, 2669

—French, under Louis XIV, 3853

—Greek methods, early, 1237

—Henry III and labourers, 3417

—Ilyrian, 917–8

—implements, evolution of, 285, 316

—invention of, 45

—Italian, prehistoric, 1813

—land tenure by service, 2728

—medieval, 2669, 2070, 2727–8, 3078, 3097

—Black Death changes, 3432

—normal occupation, 3417

—Mediterranean region, 341–6

—Minoan, on Harvester Vase, 765

—monastic influence and methods, 2282, 3488

—Persian religion encouraged, 1144

—in Peru, 4333

—in pre-Revolutionary France, 4117

—progress, U.S.A., 4487

—in Revolutionary France, 4136

—ridge and furrow origin, 2661, 2727

—Roman, 1812, 1994

—Africa, 1995

—festival of Ambarvalia, 1742

—Thirty Years' War, 3035

—time-reckoning in, 298

—trade unions and, 4681

—Tudor period, 3487

—war's effect, 1713

—in western U.S.A., 4505

—women employed in, 285, 372

See also Cultivation; Farming

Agrigentum, Romans in, 1576

Agrippa, M. Vipsania, Augustus supported by, 1792, 1793

—death, 1847

—drainage works, 2051–52

—friendship with Augustus, 1841

—engineering achievements, 2034

—improvements in Rome, 1868

—life and career, 1810

—naval inventions, 1733

—Pantheon built, 1017

—portrait, 1793

—roads in Gaul, 2043

—victories in Spain, 1844

—victory over Mark Antony, 1793

—victory over Sextus, 1792

—visit to Syrian provinces, 2050

Agrippa Postumus, 1847–49

Agrippina, the Elder, 1847

—portraits, 376, 1846

Agrippina, the Younger, 367, 1855

—freedman Narcissus and, 2004

—marriage with Claudius, 1855

—mother of Nero, 1852

—murder of, 1856

Ague : *see* Malaria

Ahab, 820

—at battle of Ramoth Gilead, 879

—connection with Tyre, 825

—limitation of power, 820

—quarrel with Syria, 378

—rings of palace, 822

Aha Men : *see* Menes

Abaz, alliance with Assyria, 820

—Bethel assigned to, 830

Abaziah, king of Israel, 820

—alliance with Jezebel II, 827

—fall of, 825

Abbiyaya, Hittite name of Achacars, 870, 1031

—king of, 870

Abiram, king of Byblos, coffin and inscription, 806, 1078, 1079

Ahmad Ibn Tulun, culture under, 2530

—fleet, 2540

Ahmad Shah (Afghan), 3790–98, 3797

Ahmad, Turkish wars, 3751

Ahnas or Minasa-yi, 4015

Ahirman, in Iranian religion, 1130

Ahura-mazda, Persian god, 1130–1, 1142

—bull killed by Mithras, 2093

—on Rock of Behistun, 1129

—on seal of Darius, 1089

—worship, 2308

Aidan, S., missionary work, 2677, 2678

Aids, Louis XIV taxation, 3850

Ain Gela, battle of, Mongol defeat, 2822

Ainus, 2379, 2380, 2381

—ancient burial remains, 2381

—bear-cult, 189, 192

—contrast with Japanese, 2380–81

—language, 2383

—long-headed early type, 214

—non-Mongol race, 411

—origin of type, 2383

—prehistoric, 2389

Aircraft, co-operation with fleet, 4833

—in war, future, 4825

Air Force, Royal, formation, 4822

Air-raids, effect on civilian moral, 4824

—German, on London, 4815, 4825

Airships, war-time development, 4780, 4787

Aisne, 1st battle (1914), 4747

—2nd battle (1917), 4772

Aistulf, king of the Lombards, 2416

Aix-la-Chapelle, Charlemagne's capital, 2127–28

—chapel, 2126, 2128, 2139

—congress at (1818), 4260

—Peace of, 3905

—and Louisbourg, 1025

Ajaccio, Napoleon's birthplace, 4170

Ajanta, cave-temple frescoes, 2395

Ajax, Achaean chief, 789

—falling on his sword, 1161

—great meat-eater, 847

—shield, 748, 846

Ajivika, Indian sect, 1217

Ajmer, Akbar's fort at, 3789

—Garden of Splendour, 3789

Akalwasha, against Egypt, 794

—probable Egyptian name for Achacars, 870, 1031

Akabistots, hymn of seventh cent., 2032

Akbar, Mogul emperor, accession, 3767

—audience of, in juvenility, 3792

—building City of Victory, 3769

—built palace at Agra, 3784

—clothing of, 3791

—courage and reign, 3431

—entering Surat, 3764

—Gate of Victory, 3785

—growth of Empire under, 3772

—on hunting expedition, 3782

—monument, Sikandra, 3789

—portrait, 3483

—religious toleration, 3482

—riding elephant, 3779

Akbar-Namah, illustrations from, 3764, 3769, 3770, 3792

Akhamanish : *see* Achacars

Akhetaton, boundary stone, 746

—city of Akhaton, 683

—excavations at, 684–85

—founding, 742

—model of typical estate, 686

—stele of Amenhotep III, 700

—temple of sun-god, 745

—tomb of governor, 748

5097

Akhnaton, pharaoh, 600, 740-53
 —Amunhotep IV takes name, 742
 —bust compared with Nefertiti, 750
 —collapse of Asian rule, 681
 —dealings with Hittites, 729
 —empire lost under, 734
 —gives audience from balcony, 688
 —head of daughter, 750
 —an incompetent pharaoh, 800
 —luna his grandfather, 682
 —loss of Phoenicia, 1013
 —Nefertiti his queen, 705, plate *f.p.* 753
 —plan of palace at Akhetaton, 653
 —portraits, 666, 741-46
 —proclama interest in truth, 656
 —religious revolution, 739-752
 —results of heresy, 653
 —son of Aton, 648
Akkad, area of, map, 512
 —Aramian nouns settle in, 459
 —Sumerian influence in, 459
Akuta, invasion of China, 2561
Alabama, coal and iron in, 4497
Aladi, brother of Saladin, ruler, 2744
Alaghu, Palaeolithic tools at, 599
Alais, Treaty of (1629), 3694
Alai Tagh, mountain barrier, 436, 441
Alaksandus, prince allied to Hittites, 736
Alalia, Cor-sica, naval battle, 1058, 1161
 —Phoenician colony at, 1094
Aian Rufus, founded Richmond Castle, 2715
Alans, in Italy and Gaul, 2201, 2204
 —origin, 2206
Alaric the Goth, death, 2202
 — — — invaded Greece & Italy, 2201
 — — — Rome, sack of, 405, 2202, 2223
 — — — siege of Aquileia, 3020
Alaric II, Visigoth king, 2259, 2260
Alashiya, cuneiform tablets from, 610
 —doubtful locality, 795
 —ruled by Lukka, 794
Alaska, bought by U.S.A., 4520
 —reached by early Russians, 3931
Ala ud-Din Khilji, conquest of India, 3170
 — — — fixed tariff enacted, 3173
 — — — gao in Delhi, 2692
 — — — law against Hindus, 3171
 — — — owned Koh-i-nor, 3775
 — — — reign, 2833, 2892
Alba, destroyed by Tullus Hostilius, 1599
 —Guelic prince in, 2677
Alba Longa, 1644, 7646
 — — — celebrations of Latin Union, 1745
Alban Hills, early draining, 2029
Albania, Aegcan timber trade, 407
 —revolt against Turkey, 4581
 —Slavonic influence in, 2478
Alban, Lake, draining, 2029
Aleric, dictator of Rome, ruler, 2771
Alberoni, Giulio, cardinal, portrait, 3830
 — — — and Spanish navy, 3881
Albert (of Austria), German king, murder of Adolf of Nassau, 2829
 —reign, 3002
 —tyrant of Tell story, 2830
Albert, the Bear, Mark of Brandenburg given to, 2736
Albert (of Hohenzollern), and Teutonic Knights, 2079
Alberta, joins Dominion of Canada, 4007
Albigenses, crusade against, 2309, 2749, 2826
Albinus, procurator of Judaea, 1937
Albinus, Clodius, candidate for Roman Emperor, 1077, 1973
al-Biruni, Persian scholar, 3176
Albistan, Hittite monuments at, 718
Albizzi, family, power in Florence, 3130
Alboin, Lombard king, character, 2219
 —reign and death, 2270
Albrecht, horse armour, 2936
Albuquerque, Afonso d', Portuguese viceroys of India, 3534, 3535
Alcagovas, Treaty of, 3531
Alcaeus, ode to his brother, 1003
 —representing Ionian literature, 1047
Alcantara, Roman bridge, 2030, 2018
Alchemy, Arabic, 2534
 — — — Bruegel's picture, 352
 —forerunner of chemistry, 352, 350, 364, 3201

Aloibiades, command of Sicilian expedition, 1243, 1244
 —condemnation by Athenians, 1244
 —feast in house of Callias, 1235
 —imperialistic ideas, 1545
 —intrigues at Athens, 1245
 —life saved by Socrates, 1242
 —in Plato's Symposium, 1358
 —Sparta aided by, 1244
Aleia, home life, 837
 —honour for Alete, 849
 —hospitality to Odysseus, 851
 —palace, 839, 980
Almazonidae, Attic family, 1042, 1120
 —coin of, 1115
 —exile and return to Athens, 1093
Aleman, Greek poet, 1047
Aleuic, of York, at Charlemagne's court, 2437, 2685, 3187
 —on Danish invasion of England, 2461
 —head of S. Martin's, Tours, 2438
 —learning and works, 2439
 —revision of Bible, 2685, 3187
Aldborough, Roman importance, 2147
Alderman Abol, a satire, 3604
Aldobrandeschi, rule of, 2768
Aldobrandini, wedding, Roman painting, 1985, 7936
Aldermen, 2405
Aldred, Lindisfarne Gospels, plate *f.p.* 2455
Aldus Manutius Romanns, printer and scholar, 3189, 3328-9
Ale, English drink, medieval, 3442, 3444
Alemanni, Gratian's victory over, 2108
 —origin of, 2115
 —overthrow by Aurelian, 2110
 —Roman coexistence of, 2117
Alembert, Jean de Rond d', Grande Encyclopédie, 4128
 — — — life and philosophy, 4066
Aleppo, attacked by Mursil I, 730
 —city mound, 731
 —falls to British (1918), 4784
 —Mittanni's capture, 731
 —Sabbulumma's capture, 732
 —treaty with Mursil, 735
Alesia, blockaded by Caesar, 1730
Alessandria, construction and siege, 2761
Aletes, son of Hippobotes, 983
Alexander (of Battenberg), tsar of Bulgaria, 4554, 4555
Alexander (of Epirus, c. 265), Aetolian alliance with, 1070
Alexander (of Epirus, c. 330), the Molossian, 1417, 1604
Alexander III (of Macedon), the Great, 1423-1450
 —accession, 403, 1406
 —Achilles as ancestor, 1430
 —Alexandria founded, 1006
 —army, 1429
 —on athletes, 1326
 —cavalry genius, 1431
 —Celtic aid used by, 1524
 —effies founded by, 1487-89
 —conquests, 1406
 —effects, 1953
 —Darius' peace terms, 1440
 — — — family and, by Veronese, 12
 —death of, 403, 1409, 1440, 1489
 —deification and divine honours, 1427-28, 1876
 —East and West amalgamation, 1442, 1446
 —Eastern campaign, 1430, 1487
 —at Eighth Troy, 866
 —impro, 403, 404 : map, 405, 1436
 —after death, map, 7582
 —distribution of, 1400, 1583, 1685
 —organization, 1440
 —routes and extent, map, 1122
 —fleet, 1434
 —generalship, 1423
 —Graneus, battle of, 1432
 —heirs, 1409
 —horse Bucephalus, 1425
 —Indian conquests, 1443
 —explorations, 1445
 —Issus, battle of, 1436
 —Jewish religion encouraged, 1702
 —Julius Caesar, comparison, 1445, 1447
 —marriages with Persian princesses, 1488
 —military genius, 1431, 1440

Alexander III, the Great—cont
 —mother, devotion to, 1424
 —naval genius, 1439
 —Persian invasion, 1429
 —physical characteristics, 1428, 1429
 —portraits, 405, 1424, 1426-29
 —Porus defeated, coin, 1444
 —religion, 1430, 1441, 1442, 1446
 —Roxann, wife, 1408-90
 —sarcophagus at Sidon, 1430-34 : plate *f.p.* 1434
 —science, friend of, 2061
 —Statue, wife, 1400, 1446
Alexander II, pope, election of, 2506
Alexander III, pope, opposes Frederick Barbarossa, 2737
 —refuge in France, 2775
Alexander IV, pope, struggle with Empire, 2825
Aloxander V, pope, election, 3135
Alexander VI, pope, 3249, 3200, 3431
 —denunciation of old and new worlds, 3532, 3533
 —drawings first used, 3214
 —phrase on Roman Curia, 3323
 —poisonings of cardinals, 3246
 —in political cartoon, 3293
 —portrait, 3249
Alexander VII, pope, envoy sent to Louis XIV., plate *f.p.* 3855
Alexander I (Russa), accession, 4097
 —champion of reaction, 4200
 —death, 4263
 —idealism, 4257
 —murder of Due d'Enghien, 4099, 1187
 —portrait, 4258
 —at Tilsit, 4190
Alexander II (Russa), 4375
 —assassination, 4089
 —liberation of Serbia, 4550, 4089
Alexander III (Russa), accession, 1550
 —death, 4562
 —reactionary, 4930
Alexander III (of Scotland), 2930
 —in House of Lords, 2842
Alexander (Yngco-Slavica), 1891
 —dictatorship, 5080
Alexander Severus, Roman emp., 2112
 —recognition of Christianity, 2180
Aloxander, the Astolian, poet, 2108
Alexander, son of Alexander the Great, birth of, 1400
 —guardianship, 1410, 1412
 —murder of, 1413
Alexander, bishop, definition of the Logos, 2332
Alexander, son of Crassander, 1413
Alexander, of Jerusalem, death, 2180
Alexander Farnese : see Farnese
Alexander Jannaeus : see Jannaeus
Alexander the Philhellene, fight against Persia, 1429
Alexandra Feodorovna, tsarina, 4943
 — — — bedroom of, 4945
 — — — influence of Rasputin, 4914
Alexandra Salomo, wife of Alexander Jannaeus, 1955
Alexandria, ancient, 1487, 1538, 1512
 — — — bombarded by British (1882), 1558
 — — — centre of Christian thought, 2275
 — — — Greek culture, 1587, 2168
 — — — commercial importance, medieval, 2011, 2012
 — — — foundation, 403, 1006, 1361, 1408
 — — — harbours, ancient, 1530, 1537
 — — — Jewish centre, 2005
 — — — land sinking, 28
 — — — library, 2001, 2002, 2160, 2167
 — — — Mahomedan conquests, 2348
 — — — museum, 2107
 — — — Palestine subject to, 811
 — — — plagues of, 1534, 1536, 1538, 2050
 — — — plague (A.D. 250), 2175
 — — — plan of early city, 1439
 — — — reconstruction, 1536-37
 — — — scientific centre, 1186, 2061
 — — — Serapeum, 2100, 2107
 — — — Serapis, worship of, 1447
 — — — sixteenth century view, 2973
Alexandria Eschate, founded by Alexander, 1488
Alexandrine Learning, 2105-2171
Alexandros Sotools, Christian, 2005, 2185
 — — — philosophical, 2171

Alexandrine Science, 2061, 2061
 Alexandrine Verse, origin of name, 1419
 Alexis (of Russia), accession, 3761
 Alexis, son of John I Comnenus, coronation, 2659
 Alexis, son of Peter the Great, 3357
 —judicial murder, 3935
 —portrait, 3936
 Alexis Romanov, Russia under, 3930
 Alexis III Angelus, emperor, 2749
 Alexius I Comnenus, emperor, 2050-51
 —appeal to Pope, 2651, 2797
 —Crusades aided by, 2651-52, 2660
 Alexius II Comnenus, emperor, 2742
 Alexius Comnenus (of Cyprus), ejected by Count de Lion, 2743
 Al-Farabi, philosopher, ruler of, 2535
 Alfieri, Count Vittorio, classicist, 4045
 Alfold, Hungary, extent, 3149
 Alfonso, brother of Louis IX, obtains Toulouse, 2826
 Alfonso I (of Aragon), reign, 2659
 Alfonso VI (of Castile), 2617
 Alfonso X (of Castile), the Sage, 2827-28
 —Alfonshue tables, 3261
 —Spanish cantiga collected, 2907
 Alfonso IV (of Portugal) and Canary Islands, 3528
 Alfonso (count of Portugal), conquests, 2660
 Alfonso XII (of Spain), 4559
 Alfonso XIII (of Spain), 4559
 Alford, William, letters of reprisal, 3811
 Alfred the Great, 2497
 —Guthrum repulsed by, 2004
 —fasting repelled by, 2605
 —Jewel of, plate f.p. 2454
 —laws, 2453
 —London penny of, 2197
 —on state of learning, 2164
 —Treaty of Wedmore, 2497
 Algebra, Arabic influence, 2534
 —Hindu science, early, 2406
 Algéciras, Conference of, 4577
 Algeria, ancient independence of, 1031
 Algiers, captured by French, 3807
 —French African empire in, 4275
 —Lord Exmouth's expedition, 3807
 —a pirate kingdom, 3805
 Al-Hakim, patron of learning, 2540
 Alhambra, 3276, 3280-82
 —bronze lamp for mosque, 3288
 —Captivity's tower, plate f.p. 3276
 —Court of the Lions, 3281
 —Hall of Justice, paintings, 3266, 3289
 —Hall of the Ambassadors, 3282
 —Moorish jar in, 3284
 —Saracenic art, specimens, 2539
 Alhazen, discoveries on light, 3201
 Ali claim to khalfate, 2346, 2349
 —death, 2350
 —early adherence to Mahomet, 2308
 —war with Moawiyah, 2349
 Ali Basha, Barbary corsair, 3805
 Aliens, class for, New York, 318
 Alix of Hesse; see Alexandra Feodorovna
 Aljubarrota, battle of, 3133
 Aljubar, Roman silver mine, 1995
 Alkali, French industry, 4786
 Al Kamil, 2820
 Alken, Henry, bull-baiting, 4103
 Alkmaar, Spanish siege, 3171
 Allah, identity with Christian and Jewish God, 2375
 —Mahomedan conception, 2373
 Allahabad, Asoka's pillar at, 1216
 —Shah Alim flies to, 3708
 Allectus, in Britain, 2125
 Allegri, Antonio; see Coreggio
 Allen, Sir Thomas, expedition against Algiers, 3800
 Allenby, Lord, enters Jerusalem, 4775
 —in Megiddo valley, 810, 4784
 —portrait, 4776
 All Hallow E'en, witches' Sabbath, 3200
 Allia, Italy, Roman defeat, 1002
 Allies, Roman use of word, 2251
 Allies, War of the, against Actollians, 1077
 Alls, Battle of, 2345
 Allosaurus, skeleton and reconstruction, 124
 All Russia Central Executive Committee, 4007

Alluvium, in central China, 442
 Alma, Battle of the, 4374
 Almanzar, added to Cordova mosque, 3271
 Almeida, Francisco de, Portuguese viceroy of India, 3534
 Almeria, Spain, Moorish dockyard, 3278
 Almeric, of Jerusalem, in Egypt and Syria, 2741
 Almoahades, architecture under, 3275
 —in Spain, 2660
 Almoravids, Empire of the Two Shores, 2647, 3393
 —intolerance to Christians, 2659
 Almos, Magyar chiefs, 3149
 Almoshouses, Byzantine, 2042
 —medieval method of relief, 3490
 Al-Mustansir, measures of, 2538
 Alpaca, animal, evolution of, 2592
 Alp Arslan, Seljuk sultan, 2780-87
 —assassination, 2645
 —conquest of Asia Minor, 2514
 —governor of E. provinces, 2781
 Alpera Gaves, Capitan figures, 292
 Alptragus, astronomical theory, 3291
 Alphabet, 1061-1080
 —Athenian, 1069, 1073
 —ancient and modern, chart, 1076
 —Arabic, 1076, 1080
 —Arabic, 1076, 1080
 —Armenian, 1062
 —Bretan theory of, 607, 1066
 —Jumacian, 1755
 —Egyptian, 1074, 1075, 1076
 —Etruscan, 1154
 —Ethiopic, 1075, 1076, 1077
 —Hagmitic, Slavonic, 1062
 —Gothic, 1062
 —Greek, 1075, 1076, 1077-80
 —Hebrew, 1076, 1080
 —Indian, 1080
 —Korean, 1073
 —Latin, 1076, 1080
 —in Turkey, 1097
 —Mediterranean signary theory, 1067
 —Minoan influence on later, 765
 —obscurity of origin, 804
 —oldest certain inscription, 1078
 —origins of, 297, 298, 1061-1080
 —Persian, 1080
 —Phoenician, 1075, 1076, 1077-80
 —Sinhacan, 1075, 1076, 1077
 —Samaritan, 1076, 1080
 —Semitic, 1075, 1076, 1079
 —Syriac, 1076, 1080
 —W. European scripts, 1067
 See also Runic Alphabet; Writing
 Alpine-Arab, race fusion, 457
 Alpine-Nordic, race fusion, 232
 Alpine Race, 1510-15
 —in the Aegean, 408
 —(Austrian) broad-head, 229
 —broad-heads, westerly, 223
 —in Europe, 630
 —pyramidal heads, 228
 Alps-Garpathian Race, in Europe, 630
 Alpo, Hannibal's crossing, 1655
 —post-Cretaceous, 109-110
 —rivers on southern, 3029
 —Roman roads, 2035
 Al-Rahman, name used for Deity, 2375
 Alsace, ceded to Germany, 4365
 —first French steam engine in, 4283
 —French sentiment in, 3035, 4151
 Alsace-Lorraine, restored to France (1919), 4875
 Al-Safah; see Abdallah Abul-Abbas
 Alse; see Alzi
 Altai Mountains, desert near, 312
 Altai Mountains, formation, 100
 Altamira, cave-paintings, 253-9, 261-63
 Altamsh, Delhi sultan deposed by, 2760
 Althusius' Politics, philosophy of, 3009
 Altmark, Treaty of, 3587
 Altomunster, monastery, 2081
 Altunash, governor of Khorosmia, 2780
 Alva, duke of, 3407, 3468
 Alvao, inscriptions and carvings, 1007
 Alypius, friend of S. Augustine, 2325
 Alzi, alliance with Egypt, 731
 —occupied by Mushki, 797
 Amadeo, of Savoy, resigns Spanish crown, 4559
 Amalaswintha, queen, 2264, 2265
 —held to throne, 2261

Amalekites, crushed by Saul, 677
 —Jewish tribes and, 815
 Amalfi, dukes of, merchant princes, 2692
 Amalgamated Clothing Workers, 4517
 Amalric, Visigoth king, 2267
 —succession disputed, 2260
 Amanullah, westernisation of Afghanistan, 4898, 4899
 Amasia, road centre, 719
 Amasis; see Aahmes
 Amazon, blowpipe used on, 282
 —early cultures, 2598
 —international access, 4327
 —rain forests, life in, 396
 —unexplored regions of, 4336
 Amazonas, migration to, 4329
 Amazons, of Dahomey, 372, 3984
 —in mausoleum frieze, 355
 —origin of legend, 372
 —relief of possible Hittite, 726
 —slaughter of, 3243
 Ambardalia, festival, 1742
 —as state ceremony, 1747
 Ambassadors, Conference of, 4387
 Amber, Baltic trade, 239, 267
 —commerce in early Europe, 2213
 —in Neolithic grave, 618
 —Roman trade, 1937, 2135
 Ambigatus, story told by Livy, 1523
 Amboise, Peace of, Huguenot concessions, 3404
 Ambosna, massacre of, 3550, 3551
 Ambrose, S., bp. of Milan, 2321-23, 3017
 —Cicero's influence on, 2324
 —friendship with Symmachus, 2224
 —position in medieval schools, 3017
 —teacher of the Church, 2327
 Ambrsius Aurelianus, British leader, 2447
 Amburbium, in ancient Rome, 1747
 Ameinias, at battle of Salamis, 1183
 Amelu, upper class, Babylonian, 574
 Amelun, Mesopotamian freemen, 524
 Amenah, ready to devour heart, 631
 Amen, god, 515, 635, 639, 739
 —Alexander as, 1427
 —Alexander and oracle of, 1439
 —Amenhotep II's sacrifice to, 604
 —brazen doors for temple, 700
 —temple at Luxor, 705
 —temples, Thebes, 712
 Amenemhet I, king of Egypt, 427
 —as cultivator, 647
 Amenemhet II, daughter's crown, 668
 Amenemhet III, developed irrigation, 428, 429, 646
 —obscidian head, 664
 —petrified of, 559
 Amenemhet IV, rebellions against, 543
 Amenemhet, water-clock, 688, 704
 Amenemhet, tomb painting, plates f.pp. 552-53
 Amenhotep I, Aahmes-Nefertari his mother, 706
 —Cushite kingdom crushed, 670
 —Nubia invaded, 658
 —reorganization of Egypt, 657
 Amenhotep II, 663-64
 Amenhotep III, 665, 681
 —and Amen-Ra, 740
 —audience from balcony, 688
 —glass fashionable in palace, 703
 —Minoan pottery in palace, 758
 —Nubian temple dedicated to Tihi, 679
 —portraits, 664
 —pottery, 702
 —power of Egypt under, 799
 —seal from Ialyssa, 785
 —Theban temples added to by, 704
 —and Tihi, 709
 —toothache sufferings, 702
 —worshipped, 748
 Amenhotep IV; see Akhnaton
 Amen, stole of, showing costume, 552
 —tomb of, Beni Hasan, 545
 Amenophis, teaching of, 708
 Amen-Ra, god, 545
 —in boat, 643
 —conebines of, 550
 —connection with Ammon, 1024
 —hymns to, 740
 —overthrown by Akhnaton, 740
 America, aborigines, 2565, 2569
 —archaeology of, 2565-2601

America—*cont.*

- Aztec period: *see* Aztec
- British colonies in North, 3891, 3906
- characteristics of natives, 232
- climatic variety, 2565
- colonisation results, map, 317
- communications with Europe, 315
- cranial shapes in, 221
- deserts in, 339
- economics of ancient, 2568
- exploitation of early, 3129
- Inca period: *see* Inca
- inhabitants, early, 2565
- Latin, new states, 4319, 40
- long-headed early types, 215
- Maya period: *see* Maya
- Neolithic period, 2567
- Norse relics lacking, 2528
- North-West culture, early, 2570
- Paleolithic period, 2567
- prehistoric, 2601, map 2566
- primitive man and culture, 2565-73
- race-building in, 311-320
- republics in N. & Cent. (map), 4335
- Stone Age, 2589, 3376
- Viking discovery & settlement, 2527
- See also* Canada; North America; South America; U.S.A.; etc.
- America, Central, map, 4335
- U.S.A. and, 4727
- American Civilizations, Early, 470, 2565-2601
 - Independent origin, 2583, 2600
 - Northern cultures, 2569
 - pre-conquest, 4361
 - pre-Inca, 2591
 - Pueblo, 2571-73
 - S. American, antiquity of, 2592
 - Tlauhameca culture, 2592, 2597
 - See also* Aztec; Inca; Maya; Natchez; Proto-Chinua
- American Civil War, 4390-92
 - effect on Canada, 4407
 - industrial results, 4487
 - map illustrating, 4391
 - steel-plate vests used, 2937
- American Federation of Labour, Gompers and, 4517
- American Independence, Declaration of, 3909, 4031
 - draft and signatures, 4031
- American Independences, War of, 3908-3910, 4029-31
 - causes, 4026
 - division of parties, 4026
 - George III and, 4224
 - Lafayette and, 4160
 - Russia's attitude, 3939
- American Indians, allied with French, 4006
 - attacking coach, 4507
 - basket work, 3570
 - Champlain's battle with, 1015
 - dwellings, types of, 289
 - early writing, 1064, 1061
 - Jesuit dwellings with, 3688
 - language, 322
 - long-heads, 215
 - with President Harding, 4508
 - struggles of colonists with, 4022
 - totemism, 210
 - treatment of, 310
 - in tropical America, 4321
 - U.S. problem, 4506
- American Languages, early, 2568
- American Origins, 2565-2601
 - See also* American Civilizations
- Amida, Persian siege, 2195
- Ami du Peuple L', Marat's paper, 4161
- Amisins, Germans repulsed at (1918), 4778
 - tank battle (1918), 4822
- Amiens Cathedral, architecture, 2380
 - central porch, 2382
 - Gothic statuary, 2363
- Amiens, Peace of (1802), 4007, 4186
 - Sidmouth and, 4187
- Amman, Jost, printing woodcut, 3196
- Ammanius Marcellinus, 2224
- Ammon, Amen-Ra, Basil-Haman, 1624
 - See also* Amen
- Ammon, Oasis of, Cambyses' expedition against, 1088
- Ammonius Saccas, discourses, 2005
 - philosophy, 2171
- Amnesty Act (1872), 4510
 - after American Civil War, 4492
- Amon, assassination of, 832
- Amorites, Hittite alliance, 729
 - in Palestine, 809
 - penetration of Babylonia, 432
 - Sargon of Agade defeats, 431
 - Shargalishurri's defeat of, 431
 - treaty with Mursil, 735
 - typical heads, 797
- Amorium, under Leo the Isaurian, 235
- Amos, appeal to Zion, 817
 - connects Philistines with Crete, 796
 - importance of, 828
- Ampa, inhabitants of Miletus at, 1004
- Amphibin, dry-skinned reptiles and, 11
 - early, 44, 116
 - oldest remains, 115
- Amphitryonic Council, Philip of Macedon president, 1401
 - pracy opposed by, 1547
- Amphipolis, battle of, 1243
- Amphitheatres, building of, 2053, 2057
 - Caerleon, Britain, 2441, 2443
 - Colosseum at Rome, 2000, 2023, 2554-5, 2056
 - degrading influence, 2025
 - Di Dorn, Tunisia, 2055, 2057
 - Pompeii, 1814, 1815
 - Roman shows in, 2023-25
 - women in, 2022
 - See also* Gladiators
- Amphora, Attic, 1040, 1269-70
 - geometric, 997
 - gold, from Mycenae, 781
- Amraphel, of Shinar, identified with Ilanunabi, 432
- Amrarians, customs and pottery, 38, 39
- Amro, burns Alexandria library, 2164
 - captures Alexandria, 2348
 - Cyrenaica annexed, 2348
 - Egypt, conquered, 2347
 - Moawya supported by, 2350
- Amulists, Aurignacian shell, 250
 - bull-roarers as, 251
 - flint arrow-heads as, 352
 - Justinian Age, use of, 2302
 - New Guinea trade in, 251
 - Pheonician, 1627
- Amur, R., Mongolian emigrants on, 411
- Amurath I: *see* Murad
- Amyntas, king of Macedonia, 1402, 1403
- Anabaptists, as Puritans, 3707
 - sketch by Inglo Jones, 3715
 - Stuart engraving, 3718
- Anabasis of Cyrus, 1247, 1345
- Anacletus II, pope, 2050, 2773-74
- Anacreon, Greek poet, 1343
- Anagni, Boniface VIII at, 2846, 3064
- Anahita, goddess, 2088
- Ananda, Buddha's disciple, 1211, 1215
- Anarebists, in Russia, 4940
- Anastasiu I, emperor, 2259, 2261, 2265
 - death, 2261
 - on ivory diptych, 2267
 - Long Wall built by, 2291
- Anastasiu II, accession and fall, 2355
- Anastasiu, teacher, 2337
- Anatolia, broad-heads in, 226, 228
 - dominated by Phrygia, 883
 - early Greek settlement, 984
- Anatolian, modern, compared with Hittite, 228, 230
- Anatolian Race, 230, 630
- Anatomy, early Greek views, 2061
 - foundation of schools, 5016-17
 - Leonardo da Vinci, 3820, 3821
 - Vesalius, 3338, 3338, 3829, 5041
- Anau, copper found at, 634
 - proto-Elamite pottery from, 457
 - and Robenhausian culture, 267
- Anaxagoras, of Clazomenae, 1471
 - theory of the world, 1453
- Anaxilas, tyrant, allied to Carthage, 1164
- Anaximander, geographical science founded, 1047
 - scientific achievements, 1469
 - Anaximenes, astronomer, 1469
- Ancestor worship, Chhesso, 3507, 4045
 - Etruscan, 1011
 - Iranian, 1129
 - Peruvian, 3387
 - ritual dance, 3385
 - Roman, 1877
- Anehor, early Christian symbol, 2180
- Anehorites, lametism, 2276
 - place of origin, 2627
- Ancien régime, France, 4113
- Ancient Life, era of, *see* Paleozoic
- 'Ancient Mariner,' Coleridge, 3115
- Ancona, occupied by French, 4269
- Aneus Marens, head on coin, 1645
- Ancrea: *see* Angora
- Andalusia, origin of name, 2201
- Andamanese, S-shaped bow, 280, 281
 - unable to make fire, 280
- Andenes, Inca, 3381, 3383
- Andes, Christ of the, 4323
 - influence on S. America, 4320
- Andhras, in India, 1962, 1981
- Andoicles, vase painting, 4340
- Andra del Sarto, S. Agnes, 366
- Andra, wood of, 2449, 2160
- Andrus, in Hittite records, 736
- Andrew II, of Hungary, reign, 3152
- Andrew III, of Hungary, reign, 3004
- Andromache, Achaean matron, 814, 819
- Andromeda, spiral nebula, 57, 61
- Andronicus I, torture, 2052, 2633
 - usurpation of throne, 2742
- Andronicus II, reign, 2099
- Andronius, Livius, author, 1758, 1761, 1884
- Andru, Sir Edmond, governor of New York, 4023
- Andrusovo, Peace of, 3930
- Angell, Norman, on modern conquest, 4688
- Angels, in Mahomedanism, 2372, 2377
- Angonnes, Julius d', prolonged engagement, 3992, 3993
- Angevin Kings, land in France, 2820
- Anglberg, Albot, built St. Rhyder, 2111
 - and monastic education, 2438
- Angkor Thom, gate of, 2497
- Angkor Vat, temple, 2106, 2107
- Angles, settlement in England, 2271, 2448, 2450-2
- Anglian Church: *see* England, Church of
- Anglo-Indians, Georgian period, 1453
- Anglo-Saxon Chronicle, 2416, 2440-1
- Anglo-Saxon Language, 2014
- Anglo-Saxon Literature, 2450, 2400
- Anglo-Saxon Period, 2444-70
 - character, 3710
 - See also* Danes; England; Jutes; Saxons
- Angola, Portuguese in, 3536
 - signalling drum, 296
- Angora, temple of Augustus, 1872
 - Tamerlane's victory at, 3121
 - Turkish capital, 4884, 4889
- Anhalt-Zerbst, Princes of, infantry regiment, 3888
- Animals as currency, 202
 - dissection by Galen, 2077
 - by Hierophilus, 2065
 - domestication, early, 219, 222, 266, 312
 - ancient Egypt, 486
 - earliest representations, 256-65
 - on Egyptian stone palette, 493
 - gods with heads of, Egypt, 461
 - on predynastic pottery, 492
 - prehistoric representations, 251-64
 - subsistence, 333
 - worship, Egypt, 461, 611, 612
 - by Minoans, 767
- Animatism, in Greek religion, 1367
- Animism, in Greek religion, 1367
 - in Latin religion, 1735
 - primitive belief, 216, 221
- Anita, butler of king of Lagash, 450
- Anjou, lost to England, 2747, 2748
- Anjou, Duke of, London's pupil, 3845
 - with Louis XIV, 3857
- Anjou, House of, kings of Jerusalem, 2799
 - nkh, Egyptian symbol, 1011, 1030
- Ankhftka, Egyptian sceptre, 496
- Ankhesenpaton, d. of Akhnaton, 750, 751
- Anaa, figure at Reims Cathedral, 2864
- Anan, Princess (989), marriage to Prince Vladimir, 2634
- Anna Amalia, Saxe-Weimar, 3975
- Anna Comnena, 'Alexiad', 2640
 - learning of, 2631

Annales Cambriae, King Arthur first mentioned in, 2447
Annam, acquired by France, 4559
Annapolis, Georgian house in, 4020
Anns (England), accession, 3757
 —with D. of Gloucester, 3757
 —marriage arrangements, 4003
Ann of Austria, regent for Louis XIV, 3597, 3598
Ann of Beaujeu, regent for Charles VIII, 3144, 3297
Anne of Brittany, marries Charles VIII, 3610
Anne of Courland (Russia), accession, 3855, 3858
 —death, 3886
 —and Polish succession, 3855
Anne Boleyn, parentage, 3435
Annegray, given to S. Columban, 2679
Anno, Archbishop, regent for Henry IV, 2605
Annona, goddess of corn market, 2002
Annozio, Gabriele d', at Plume, 4332, 4333
Anomoi, beliefs of, 2335
Anselm, S., investiture problem, 2055
 —learning, 2614
Aushan, acquired by Achaemenids, 1137
 —war with Lagash, 523
Anshar, Assyrian god, 979
Anta, tomb of, relics, 550
Antae, early Slavs, 2473
 —raids on Byzantine Empire, 2476
Antaleidas, Peace of, 1243, 1393
Antarctic, no inhabitants, 333
Antefoker, painting from tomb, 557
Antelope, ancestry, 133
 —caught by Egyptian servant, 710
 —Miocene, 131
 —in predynastic Egypt, 484, 486
 —Siberian, in England, 110
Ante-scripturian, secular, 3718
Anthemius, emperor, 2208
Anthemius, prefect, fortification of Constantinople, 2200
Anthemius of Tralles, architect of S. Sophia, 2640
Anthology, the Greek, 1302
Anthony, Christian hermit, 2275
Anthropoids, ancestral types, 101, 184
 —embryology, 181
 —genealogical tree, 185
 —modern types, 107, 170-5
Anthropomorphism, Greek religion, 1364-07, 1752-3
 —Latin religion, 1752, 1753
Antichrist, medieval treatises, 3013
Anti-Corn Law League, formation, 4434
 —motives, 4475
 —a social experiment, 4399
Antigonus I, defeat at Ipsus, 1489
 —rule, 1410
 —wars with rivals, 1412, 1413
Antigonus Doson, 1584, 1075, 1677
Antigonus Gonatas, claims to kingdom, 1413, 1414
 —consolidation of Macedonia, 1671
 —death, 1684
 —Macedonia won by, 1583, 1584
Antillas, Lesser, colonisation, 3550
Antimachus of Bactria, on coin, 1494
Antinous, favourite of Hadrian, 1929
 —portrait, 1930
Antioch, commercial importance, 1538
 —Crusaders capture, 2053
 —earthquake at, 1908
 —figure personifying, 1416
 —founded by Seleucus, 1414
 —Knights Templars in, 2510
 —Latin state (Crusades), 2799
 —Persians capture, 2308, 2312
 —present day, 1538
 —Roman plan of town, 2059
 —Seleucid capital, 1493
 —silver chalice found at, 2777
Antioch (Antiochia Margiana): *see* Merv
Antiochus I, Soter (Syria), accession, 1585
 —on coin, 1415
 —Gallie and Syrian wars, 1585-0
 —government of the East, 1414, 1415
 —reason of surname, 1415
Antiochus II, Theos, reign, 1585-0

Antiochus III, the Great (Megas), Asia Minor, conquests in, 1585, 1701
 —Bactrian independence ceded, 1490, 1586, 1703
 —conflicts with Rome, 1680, 1689-90
 —Greek wars, 1679
 —Hannibal's schemes with, 1660
 —power and wealth, 1679
 —Syrian power revived under, 1585, 1679-9
Antiochus IV, Epiphanes, 1700, 1701-3
 —Hellenism of, 1933
 —Judaism, attitude to, 1701, 1702-3
 —Ptolemy VI, war with, 1695
Antiochus, Hierax, war with brother Seleucus II, 1580
Antipater, of Idumaea, services to Rome, 1955
Antipater (Alexander's regent), 1409-12
 —character, 1414
 —Gauls aided by, 1526
 —league against Perdiccas, 1412
Antiphrosy of Bangor, taken to Europe, 2688
Antisepctic, effect on surgery, 5053
Anti-Slavery Society, a meeting, 4102
Antisthenes, Cynic School founded, 1457
 —portrait, 1456
Antitoxins, science of, 5052
Antium, Roman colony, 1004
Antonia, d. of Mark Antony, portrayed as Cylic, 1926
Antonia, wife of Drusus, on frieze, 1862
Antonin, Archbp. of Nini-Novgorod, and the Living Church, 4972
Antonina, wife of Belisarius, 2305
Antoninus Itinerary, 2148
Antonines, age of the, 1903
Antonie Wall, distance slabs, 2142
 —Roman tombstone and altars, 2146
 —section through, 2141
Antonino of Florence, S., on usury, 3025
Antoninus, Marcus Aurelius: *see* Marcus Aurelius
Antoninus Pius, Christians under, 2134
 —divinisation of, 1902
 —portrait, 1972
 —reign, 1972
 —temples at Baalbek, 1916
 —temple to Hadrian, 1992, 1993
Antonius Marcus, father of Mark Antony, 1777
Antony of Bourbon, death, 3403
 —Huguenot leader, 3401
 —Joins Catholic League, 3403
 —portrait, 3462
Antony of Navarre, and Theodoro Boza, 3348
Antony, Mark, Caesar's lieutenant, 1783
 —and Caesar's murderers, 1789
 —character, 1789
 —Cleopatra and, 1791-3
 —coin, 1789
 —crown offered to Caesar by, 1789
 —death, 1793
 —divine honours given to, 1877
 —empire shared with Octavian, 1791
 —life and career, 1839
 —as hypocrite, 1744
 —marriage with Octavia, 1791
 —Octavian, dissensions, 1701, 1702
 —Octavian, war with, 1793
 —portrait, 1791
Antu, wife of Ann, 583
Antwerp, evacuation of (1832), 4271
 —fall (1914), 4748
 —guild houses, 2911
 —medieval prosperity, 2008, 2011
 —Naval Division at, 4747
 —Spanish Fury, 3472, 3473
Ann, god of the sky, 533
 —in creation story, 979
Anubis, Egyptian god, 355, 641
 —identification with Hermes, 2087
 —weighing heart, 651
Anwari, quotation from, 2793
Anwar ud-Din, defeat by Duplex, 3897
 —Duplex' negotiations with, 3899
Anzac Cove, Gallipoli, 4757
Anzacs, Australian and New Zealand troops, 4755
Aornos, Alexander at, 1443
Aosta, duke of, accepts Spanish crown, 4382
Apasas, Mursil advances on, 735

Apaté, goddess of deceit, 1097
Ape, brain capacity, 168
 —erect posture assumed, 159
 —in Miocene times, 162
 —in Pliocene times, 161, 162
 —tribute to Shalmaneser, 380
See also Anthropoids
Ape Man: *see* Pithecanthropus
Apennines, in Etruria, 1152
 —Flaminius Road over, 1581, 2035
Apfelbaum: *see* Zimoviev
Aper, Arius, praetorian prefect, 2122
Aphaea, goddess, temple, 1309-11
Aphrodite of Cnidus (Praxiteles), 1303, 1351
 —early austere worship, 1377
 —ideal beauty in two heads, 1380, 1381
 —inagle girdle of, 360
 —the Medici, 1333
 —of Melos (Venus of Milo), 1333
 —morality of cult, 1359
 —on Parthenon frieze, 1296, 1379
Apion, literary works of, 2170
Apis, the divine bull, 642
Apollinaris, Bp., on nature of Christ, 2336
Apollinaris Sidonius, 2225-26
 —on Visigoth court, 2211
Apollon, attributes, 1377-79, 1758
 —in battle of gods and giants, 1659
 —with Cernunnos, 1523
 —'Chatsworth' head, 1378, 1381
 —'Choiseul-Gouffier' statue, 1316
 —on coin, 1475
 —colonies sanctioned by, 1374, 1388
 —crops protected by, 1371
 —Delphic temple of, 1312, 1313, 1368
 —Etruscan statue, 1174
 —on Parthenon frieze, 1379, 1381
 —Roman worship, 1762, 1758, 1760
 —statues, 1316
 —'Strangford' statue, 1316
Apollo Lyceus, 1461
Apollodorus, built Trajan's bridge, 2049
Apollonia, Greek founding of, 1058
Apollonius Dyscolus, grammatical treatises, 2170
Apollonius Rhodius, epic work of, 1302
 —at Ptolemaic court, 2108
Apopi III, Hyksos king, 435
Apotheary, 18th century German, 3972
Apoxomenus, Greek sculpture, 1301
Appalachian Mountains, formation, 106
Appeals to Rome, Act in Restraint (1338), 3007
Appendicitis, in anthropoids, 183
Appian Way, 1695
 —construction and course, 1605, 2034
 —Scipio's tomb beside, 1696
 —Seneca's tomb beside, 1897
Appius Claudius, built Appian Way, 1605
 —aqueduct, 2041
 —name on historical register, 1607
 —writings of, 1758
Appius, Forum of, 1910
Applegarth, on picketing, 4677
Apple harvest, medieval, 3073
Appomatox, L., Broadway Landing, 4393
Appomatox Court House, Lee surrenders at, 4392, 4393
Apprentices, Craft Guild conditions, 2019
Apries: *see* Hophra
Apsu, Assyrian god, 979
Apul, tomb of, 438
Apuleius, Lucius, literary language, 1882
 —Metamorphoses of, 1893
 —portrait, 1893
Apulii, Normans in, 2015-6
 —Robert Guiscard in, 2506, 2015, 2016
 —Roman alliance, 1905
Aqua Claudia, aqueduct, 1605, 2041
Aquae Sextiae, battle of, 1770
Aqueducts: *see* Bashi
Aqua Marcia, aqueduct, 2041
Aqueducts, Bridgewater Canal, 4345
 —Roman, 2042-43, 2044, 2046-47
Aquila, church founded by S. Mark, 1711, 9030
 —destruction, 3029
Aquila, Syad of, against Arianism, 9322
Aquillus, death of, 1774

- Aquinas, S. Thomas**, on hell, 3014
 —on inspiration of the Bible, 3015
 —on monarchy views, 3342
 —on ownership, 4079
 —pupil of Irish monk, 2689
 —scholastic philosophy, 3819
 —'Summa Theologiae', 3016
 —truth of Christianity, 3020
 —on usury, 3025
Aquisgranum: see Aix-la-Chapelle
Aquitaine, Clovis master of, 2200
 —English possession, 2097
 —incorporated in France, 3010
 —Roman province, 106, 1782
 —Saracen incursion, 2301
 —submission to Rome, 1841
Arabesques, in Indian mosque, 3177
 —Moslem use of, 3177
Arabic, caravan routes, 455
 —date-palm cultivation, 455, 458
 —declares independence, 4709
 —earliest inhabitants, 457
 —long-heads in, 228
 —Ottoman dominion, 409
 —Palaeolithic culture, 457
 —primeval grassland, 436
 —Saracen doctor, 2839
 —spice and treasure traffic, 458
 —subjugation by Mahomet, 2371-2
 —under Sultan of Hejaz, 4878
Arabic Art, Abbasid school, 2839
 See also Saracenic
Arabic-Berber, civilisation, 3303
Arabic Culture, Golden Age, 2520-42
 —indulgence to Greece, 1500
 —influence on European, 2540
 —literary style, importance, 3200
 —medicive development of, 2839
 —science, 2533-34, 3200
 —Seljuk Turks set-back, 2784
 —Western influence, 2781
Arabic Language, alphabet, 1002
 —compared with Hebrew and Assyrian, 327
 —derivation, 323
 —result on conquered races, 2531
Arabic Numerals, Hindu origin, 2405
Arabic Philosophy, Aristotle's influence, 1506
 —influence on European thought, 3201
Arabi Pasba (Bey), Egyptian revolt, 4667, 4658, 4630
Arabo-Norman Architecture, 2700
Arabs, Alpine type compared, 457
 —Byzantine influence on, 2030
 —conquest of Egypt, 1000
 —desert character, 2520
 —early conquests, 2520
 —Egyptian portrait head, 35
 —and Greek medicine, 5040
 —(Hejaz) moderate long-head, 229
 —in N. Africa, 3302
 —in Palestine, 809
 —pastoral character of primitive, 458
 —religious tolerance, 3205
 —in Spain, 3260
 —wade, medieval, 2010
 See also Beduins
Arachosia, Persian satrapy, 401
Aragon, extent, 3205
 —history, 2047, 2050, 3133, 3141
 —origin, 2498
 —union with Castile, 3144, 3265, 3013
Arakha, satrap of Babylon, 1090
Aral Sea, and Mediterranean, 406
Aramaean, in Damascus, 820
 —in Jewish tradition, 814
 —in Palestine, 809
 —subdued by Ashur-nasir-pal, 878
 —tribute to Shalmaneser, 880
Aramaic Language, derivation, 323
 —writing, 1070
Ara Pacis, altar of Augustus, 1869, 1920
 —reliefs from, 1862, 1900, 1919, 2241
Ararat, alliance with Medes, 881
 —Assyrian campaigns against, 880
 —people of, 871
Aratus, of Soli, 'Phaenomena' of, 1804
 —S. Paul's quotation from, 2082
Aratus, (leader of Achaean League), 1584, 1074, 1077
 —Corinth captured by, 1074
 —Seyon won over, 1584, 1071
Araulah, threshing floor of, 1940
Arbitration, international, 4575
Arbogast, and Valentinian II, 2200
Arcadia, city state, 1106
 —Dorian invasion, 983
 —gold cup found in, 770
Arcadian Speech, problem of, 989
Arcadius, emp., death of, 2202, 2206
 —reign, 2200
 —on shield of Theodosius, 2199
Arc de Triomphe, siege of Paris, 4386
Arcelesians, school of, 1919
Arci, in architecture, Assyrian, 877, 883
 —buttressed, 2865
 —collapse, and reason, 2865
 —column combined with, first, 2032
 —Egyptian knowledge, 503
 —false, Arabic, 2000
 —Gothic, 2863, 2865
 —Maya, 2581, 2582, 2600
 —monumental Roman, 2050, 2058
 —pointed, 2869, 2870
 —Roman use of, 2230, 2238
 —triumphal, 2238
Archaeology, in elucidation of Homer, 802
 —Keith on, 141-144
 —Petrie on, 23-40
 —in study of history, 13
Archaeopteryx, fossil, 131
Archaeozoic Era, definition, 50
Archangel, and Boris Godunov, 3927
 —church, interior, 2634
 —counte-Bolshevik movement, 4063
 —massacre of Whites, 4963
 —in 17th century, 3371
Archelaus, defeat by Sulla, 1774, 1775
Archelaus, of Priene, Apotheosis of Homer, 1338
Archers, at battle of Leipzig, 2050
 —on Bayeux Tapestry, 2607
 —in Civil War in England, 2032
 —Egyptian models, 561
 —in naval battle, 674, 682
 —English development of, 2040
 —fame, 2040
 —methods with longbow, 2047
 —practical regulations, 2040
 —field kit (1485), 2940
 —heavy arm, 2930
 —Mongol, 2850, 2852
 —mounted, 2947
 —on Mycenaean vase, 783
 —Palaeolithic, 278
Archidamus, King of Sparta, 1410
 —death, 1410, 1604
Archilocheus, Ionian poet, 1047, 1840
 —quoted, 1180
Archimedes, Alexandrian School and, 2061
 —death, 1761, 2066
 —discoveries, 1781, 2006-2060
 —Epipolae fortress planned, 1251
 —gold theft detected, 3067
 —life and character, 2060
 —medieval importance, 3017
 —scientific works, 2068-9
 —screw, 2067
Architecture, Arabic, 3177
 —baroque, 1656, 3970
 —basilica, 2184-86, 2801, 2881
 —Byzantine, 2040-41
 —Ravenna, 2203, 2259
 —S. Mark's, Venice, 3033
 —S. Sofia, 2300, 2635
 —Westminster, 2637
 —Chinese, Confucian temples, 1221-3
 —Mancini, 4657-69
 —Ming, 3515
 —Christian-Saracen, 2095
 —classicism in, 4032, 4034
 —in colonial America, 4019
 —Decorated, 2890
 —domestic, 15th cent., 3437-38
 —16th cent., 2899, 3441
 —Early Christian, 2801, 2981
 —English Cathedrals: see Gothic; Norman, below
 —Georgian, 4237-40
 —Gothic, 2861-96
 —groined vault, 2860, 2807, 2808
 —Hindu, 2402-06
 —Hindu-Moslem, 2399, 3178, 3179
 —Inca, 3379, 3380
 —invention, 362
 —Irish, Celtic, 2670-82
Architecture—cont.
 —Maya, 2570-77, 2581-85, 2592-95
 —medieval, 2801, 3251
 —modernism in, 3033-35
 —Mogul, 3784, 3785-85
 —Moslem, Ommlad, 2366, 2530
 —Mozarabic, 3273
 —Mud'jar, 3274, 3275
 —Norman, 2002, 2008, 2011
 —in England, 2009, 2700, 2707, 2709-12, 2715-19
 —in Italy, 2690, 2695, 2698-2700
 —Perpendicular, 2891, 2896
 —pre-Inca, 2593, 2596-99
 —relation to surroundings, 3276
 —religious, three phases, 2801
 —Renaissance, 3223, 3250
 —Roman, 1990-91, 2000, 2016-21, plate f.p. 2020, 2030-60
 —British, 2148-53, plate f.p. 2152
 —domestic, 2008, 2010, 2019, 2249
 —influence, 2237-38
 —Romanesque, 2869
 —Aix-la-Chapelle, 2196, 2138
 —Carolingian, 2128, 2410
 —Italian, 2756-57, 2760-63, 2766, 2834
 —romanticism in, 4315
 —Saracenic, 2536-39
 —in Spain, 2368-85
 —Sassanid, 2315
 —Saxon, 2408-69
 —Seljuk, 2783, 2785, 2793-95
 —16th cent., ecclesiastical, 3440
 —Toltec, 2591
 —Tudor, 2896, 3181, 3193-96, 3668-69
 —vaulting systems, 2032, 2866-68
 See also ancient civilizations, e.g. Assyrian, Babylonian, Egyptian, Greek, etc.
Arch. Joseph, and agricultural labourers, 3678, 4070
Archon, in ancient Greece, 1118, 1121
Are Lamp, invention of, 4700
Areola, battle of, 1093, 1181
Arcet, captured by Chive, 3807
Arctio Circle, human life in, 345, 427
Archinus of Miletus, works, 1330
Archib. Chalio, 2632
Adashir, Persian king, bas-relief, 2316
 —dynasty established, 2307
 —national religion under, 2307, 2308
 —portrait on coin, 2113
 —war with Rome, 2113
Ardawan, of Parthia, death, 2307
Ardebe Valley, revolt (1070), 3855
Ardeob, Parthian, Roman fort, 2142
Ardis, son of Gyges, 800
Arelate, Thia, region, inclusion in Germany, 2501
Areopagites, influence, 3704
Ares, god, association with Mars, 1747
Aretino, Pietro, 3047, 3212-14, 3247
Arezzo, Guido d', musical teaching, 2050, 2900
Arezzo, medieval development, 2767
 —S. Maria della Pieve, 2769
Arganthionius, of Tarsishia, 1639
Argentina, European population, 4321
 —light for independence, 4277
 —products, 4327
 —war with Brazil, 4325
Argentine Confederation, 4823
Arktis, king of Urartu, 881, 887
Aronauts, arrival in Bithynia, 1546
Aros, Arthionan alliance with, 1234
 —Corinth under anarchy, 983
 —independence from Sparta, 1390
 —kings of, 883
 —Mityan culture in, 772
 —plain of, from Mycenae, 841
 —Spartan victory, 1092
 —state's individuality, 1255
Argus, dog, fidelity of, 1281
Ariadue, wife of Emperor Zeno, 2259
Arian, sectarian, 3718
Arianism, Ambrose and, 2322-23
 —earliest seeds of, 2331
 —actions in, 2335
 —Goths' adoption of, 2208, 2336
 —Nicene Council and, 2128
 —perishing of, 2830
 —prosperity of, 2200
Ariarathes, king of Cappadocia, 1410

- Aribert, Lombard king, 2354
 Ariberto, archbishop, power of, 2753
 Arica, valley of, viaduct, 2034
 Arifuka, attacks Kublai Khan, 2854
 Arimmin, military road to, 1531
See also Rimini
 Ariana, *Mithrae* golden-, 729
 —Mural at sanctuary of, 735
 Ariosto, Orlando Furioso, 4035
 Ariovistus, German king, defeat by Caesar, 1720, 1783
 —invasion of Gaul, 2212
 Aristagoras, of Miletus, rebellion against Persia, 1095, 1533
 Aristarchus, of Samos, astronomical researches, 1187, 1555, 2063
 Aristarchus, of Samothrace, 2163
 Aristides, the Just, 1395
 —and Delian Confederation, 1231-32
 —at Salamis, 1183
 Aristides, Greek rhetorician, on Christians, 2179
 Aristippus, Hellenic, of Cynae, 2704
 Aristobulus I, of Judaea, 1955
 Aristobulus II, of Judaea, 1955
 —and Pompey, 1778
 Aristoteles, philosopher, 1903
 Aristocracy, Gallo-Roman, 2220
 —new, in ancient Rome, 1802
 —Greek government by, 1093, 1112-16
See also French Revolution
 Aristodamus, g-grandson of Hercules, 983
 Aristodemus, of Cumae, 1102, 1600
 Aristogeiton, assassin of Hipparchus, 1093, 1694, 1973
 Aristophanes, the Clouds, 1281, 1326
 —comedies of, 1350, 2168
 —lyric translated, 1350
 —in Plato's Symposium, 1358
 —portrait of, 1356
 Aristotle, 1161, 1402, 1482
 —Alexander's tutor, 1423, 1425
 —Arabic learning influenced by, 1506, 2533, 2585, 2542
 —as astrologer, 2052
 —astronomy of, 1463
 —biology of, 1464, 1480
 —Celts praised by, 1511
 —chivalry, approach to idea, 2071
 —city states and, 1464
 —the classicists and, 4035
 —on commerce, 1540
 —communities, plan of, 1124
 —on creation, 47
 —definition of philosophy, 1903
 —as economist, 388
 —on functions of the state, 1121
 —God as conceived by, 1404
 —literary criticism, 1350
 —logic of, 1462
 —Lyceum founded by, 1161
 —on mathematics, 1472
 —and medicine, 5040
 —medieval church bans, 3016
 —schools, position in, 3017
 —on ownership, 4978
 —Peripatetics and, 1462
 —Plato compared with, 1462, 1480
 —on Plato's Doctrine of Ideas, 1479
 —on Pythagoreans, 1472
 —scientific work, 1403, 1482
 —on slavery, 1123
 —on the soul, 1464, 1485
 —and unity of action, 4030
 —view of universe, 1482
 Aristyllus, observation of stars, 2064
 Ari the Larned, saga on Vinland, 2527
 Arithmetic, primitive, 203
 —Sumerian, 532
 Arius, 2331-32, 2335
 —definition of the Logos, 2332
 —excommunication, 2332, 2335
See also Arianism
 Arins Didymus, literary work, 2170
 Arizona, admitted to Union, 4507
 Ark, The, origin of, 821
 —vicissitudes of, 817
 Arkhangelski, Moscow, built by Ivan III, 3922-3
 Ark of the Covenant, Græco-Roman sculpture of, 817
 Ark Royal, Howard's ship, 3544
 Arkwright, Richard, mill, 4348
 —water frame, 4348
 Arles, Roman sewer, 2052
 Arietta of Falaise, mother of William the Conq., 2602, 2607, 2713
 Armada, Spanish, or *Frent*, 3176, 3545
 —Elizabeth returning thanks, 3180
 —Howard's flag-ship, 3544
 Armageddon: *see Megiddo*
 Armagh, early school of learning, 2679
 Armagnacs, party, 3123-29
 Armaments, growth, 19th cent., 4686
 —League of Nations and, 4930
 Armenia, Christianly accepted, 2341
 —destruction by Basil II, 2787
 —establishment of kingdom, 2799
 —evidence of early culture, 456
 —invasion by Sapor I, 2118
 —massacres in (1894), 4503
 —Parthian ruler, 1367
 —Persian Empire's absorption of, 2192, 2307, 2308
 —pop. ancient, 1127
 —Roman conquest, 1067, 1086
 Armenica, origin of name, 973
 Armenian Alphabet, 1062, 1064, 1065
 Armenian Church, doctrine, 2341-2
 Armenian Literature, early translation, 2638
 Armenians, and Crusaders, 2798-9
 Arminian, sectarian, 3718
 Arminius, defeat of Varus, 1872
 —defeat of Romans, 1848-9, 1935
 Armistice (1918), signed at Compiegne, 4781
 Armorial Bearings, 2080-81
 —Norman shields, 2006
 Armour, 2927-2946, plate f.p. 2926
 —Anglo-Saxon, 2157
 —bindings on, 2980
 —14th cent., 3091
 —Great War, 2037, 4810
 —Heroic Age, 845
 —Hungarian, 16th cent., 3146
 —Norman, 2607
 —Tatar, worn by Russians, 3919
 —20th cent., 2037, 4816, 4817
 Armoured Car, Great War, 4832
 —medieval, 2950
 —post-war, 4827
See also Tanks
 Armourers, constructional considerations, 2937
 —craft of 15th cent., 2935
 —design for suit of armour, 2943
 —Greenwich School, 2941, 2943
 —Heroic Age, 845
 —London guild and its power, 2010
 Armour-racing, in ancient Greece, 1325
 Arms: *see Armorial Bearings*
 Arms, Medieval, 2944-56
 —Norman, 2607
 —Scandinavian, 12th cent., 2606
 Army, Assyrian, 950, 960-3
 —Bolshevik, 4906
 —British, in 18th cent., 4212
 —medical reform in, 5047
 —Civil War period, 3728
 —disciplinary value, 2950, 2955
 —an economic loss, 4696
 —Egyptian, under Empire, 681
 —models, 561
 —French, supported by peasantry, 3854
 —of Gustavus Adolphus, 3631, 3641
 —of Hammarabi, organization, 576
 —Japanese, 4117
 —medieval, 2944, 2948, 2954
 —lack of communications, 2945, 2955
 —provisioning, 2955
 —Mesopotamian, 520
 —Mogul, 3779, 3781
 —professional, medieval rise, 2995
 —Prussian, Fred. William I and, 3888
 —Roman, 1717-33
 —Russian, under Bolsheviks, 4948, 4952
 —under Peter the Great, 3937
 —Sumerian, 527
See also Arms; Soldiers; Warfare, Medieval
 Army medical service, Roman, 2240, 2244
 Arnauld, Mère Anglique, portrait, 3866
 —Port Royal under, 3867
 Arndt, Ernst M., German poet, 3970
 Arndt, Julius, pietist, 3023
 Arno, river, at Florence, 2754
 —Ponte Vecchio with shops, 2926
 Arnaldi Period, in archaeology, 1152
 Arnobius, Christian apologist, 189-91, 2329
 Arnold, of Brescia, 2735-36
 —betrayal and death, 2775
 —church reformer, 2774
 Arnold, Matthew, and British insularity, 4515
 —portrait, 4514
 Arnould, Jean, portrait by Jan van Eyck, 2905, 2906
 Arnulf, king, 2495
 Arnulf, of Metz, counsellor to Frankish king, 2269, 2270
 Arnulfing Dynasty, 2260, 2354
 Arnulphus, of Milan, municipal chronicles, 2753
 Arouet, François Marie: *see Voltaire*
 Arpad, conquests and reign, 3149
 —defeat by Simon, Bulgar king, 2499
 Arpad Dynasty, 3004, 3149
 Arquebus, weapon, 2953-54
 Arras, German trench system, 1501
 Arras, battle of (1014), 4745
 —(1917), German guns lost at, 4803
 —tanks at, 4810
 —Vimy Ridge, 4771, 1772
 —(1918) Guards Brigade moving up, 4777
 Arrest, M.P.s immune from, 3670
 Arretius Ware, 1911
 Arrian, on battle of Hydaspes, 1444-45
 —Epictetus' discourses preserved, 1907
 Arthingstone, or Orator, statue, 1921
 Arrow, of Bushmen, 230
 —development, 279
 —Egyptian soldiers, 501
 —first appearance, 45, 201, 251, 279
 —in Heroic Age, 840
 —Magdalenian shaft straightener, 248
 —Palaeolithic pig, plate f.p. 201, 273
 Arrow-head, European and Egyptian compared, 37
 —neolithic, 272-73
 Arrow Incident, 4203
 Arsaces I, Parthian king, 1490, 1586-87
 Arsaces III, submission to Antiochus the Gr., 1536
 Arsacid Dynasty, founding, 1586
 —passing of Parthia from, 1931
 Arsabau, besieged by Assyrians, 379
 Arsinoe, Queen, bas-relief, 1114
 —portrait, on coin, 1557
 Arsinotherium, reconstruction, 128
 Ars Nova, of Philippe de Vitry, 2063
 Art, the Buddha's prohibition, 2398
 —classical revival, 3325
 —classicism in, 4032-37
 —encouraged by Convention, 4135
 —modern, Greek influence on, 1560
 —modernism in, 5013, 5022-37
 —religious inspiration of, 3325
 —romanticism in, 4315
 —in service of Medieval Church, 2443
See also under specific countries, periods, etc.; e.g. Assyrian, Babylonian, Chinese, Greek, Mogul, Prehistoric, Renaissance, Roman, etc.; and under branches as Architecture, Painting, Sculpture, etc.
 Artabazus, at battle of Plataea, 1103
 Artaphernes of Sardis, 1097-98
 —plan for annexing Aegean Is., 1095
 Artaxerxes (Artabanus), accession, 1232
 Artaxerxes II, Longimanus, Sassanid descent from, 2307
 Artaxerxes II, of Persia, accession, 1210
 Artaxerxes III Ochus, 1407
 Artemidorus, and superstition, 1902
 Artimls, boar sent to Calydon, 830, 968
 —on Boeotian ring, 799
 —figure on coin, 1475
 —in sculptured frieze, 1059
 Artemisia, wife of Mausolus, 1489
 Artemisium, naval engagement at, 1100
 Artevelde, Jacques van, 3082, 3080
 —death, 3081
 Artevelde, Philip van, 3086
 Arthur, King, chivalry ideal, 2071
 —list references to, 2447
 —Italian legend, 2701
 —speculations as to, 2971
 —vision of Holy Grail, 2972
 Artificial Limbs, Great War, 4790

Artillery

Artillery, Assyrian, in action, 883
 —early field, 3643, 3644
 —future of, 4820
 —Great War, German, 1914, 4748
 —dominating, 4853
 —naval, 4832, 4848
 —on the Somme, 4767
 —(1917), tactics, 4866
 —tanks and, 4817
 —typical battle, 4809
 —medieval, plate *f.p.* 2926, 2950–52
 —Mogul, 3779
 —remodelled by Gustavus, 3644
 —in Thirty Years' War, 3643, 3650
 —20th cent. revolution, 4799
Artisans, in ancient Rome, 1823
 —class of Third Estate, 4114
Artists, Egyptian, at work, 555
 —Palaolithic, reconstruction, 257
Arts, liberal and prudential, 270
Arns, estuary in early times, 28
Arundel, Thos. E. et. al. at trial of
 Stratford, 3673
Arura, Babylonian goddess, 573
Arvad, captured by Thothmes III, 601
Arzal Brethren, College of, 1747, 1800
Aryan Civilization, clash of cultures in
 India, 450
 —compared with Egyptian, 464
 —Indian development under, 2303
 —philology as key to, 448
 —race-consciousness of, 440, 452
Aryandes, of Egypt, death, 1089
Aryan Language, amongst Germanic
 peoples, 2215
 —in Greece, 1033
Aryan Race, appearance 2215
 —federation of clans, 2100
 —in Germany, 2215
 —heritage of the Eastern, 449
 —Indian invasion, 317, 439, 447, 452
 —Iranian connexion with, 1127
 —movements, map, 900, chart, 907
 —original, 2215
 —Persian and Mesopotamian in-
 vaders, 347, 439
 —religion, 1128
 —tribal organization of the, 448
 —Vedic, 2394
 —what it comprises, 630
 —wheeled carts of, 448
See also Indo-Aryans
Aryavarsas, two groups of, 451
Azazel, astrologues of, 3200
Azawa, pre-Illyrian community, 592
 —dissemination of, 736
 —kingdom of, 728
 —rebellion against Mursil III, 734
Aza, king of Judah, 819
Ascanius, commands Pirrygians, 861
Asceusius, Jodocus B., printer, 3199
Ascetism, Cynics, 1908
 —early Church, 2173
 —Eastern religions, 2084
 —Greek, 1509
 —of knight of chivalry, 2086
 —Manichaean influence, 2333
 —Oriental origin, 1506
 —revolt against, 381
 —self-torture, 2333
 —women, doctrine regarding, 370
Asclepius, or Aesculapius, cult fore-
 shadows Christianity, 1886
 —influence on medicine, 1378
 —panel and tablet to, 370
 —Roman worship, 1752
 —surgeon's instruments in temple, 1477
 —surgical knowledge of, 848
 —temple on Tiber island, 2240
Ash, Kent, church, knight effigy, 2032
Asha, ethical order, Zoroastrianism, 955
Ashtani, king Premph of, 4029
Ashtatis, suppression, 4630
Ashburton Treaty, 4278
Ashdod, Assyrian capture of, 830
 —Philistine stronghold, 796
 —plague recorded in Bible, 3103
Ashtaroth, or Ashtoreth: *see* Astarte
Ashur, chief god of Assyria, 583
 —in creation story, 978, 979
Ashur, capital of Assyria, 457, 940
 —embassy to Thothmes III, 661
 —excavations, plates, 951, 955
 —in reign of Amenhotep III, 665
 —sack of, 832

Ashur—cont.
 —Sumerian statuettes from, 541
 —temple in, 879
Ashurbanipal, in chariot, 959
 —Egyptian invasions, 1015
 —in hunting field, 889
 —hunting wild asses, 967
 —library, 949, 971–73
 —lion-hunting, 963, 964–66
 —palace, 949
 —prosperity under, 654
 —queen feasting with, 578, 579
 —sport, 963, 964–5, 967–68
 —succeeded Esarhaddon, 832
 —Taharka defeated, 880
Ashur-danlu-pal, son of Shalmaneser
 III, 880
Ashur-nasir-pal II, 876, 877, 878
 —Assyrian power under, 820
 —in chariot on ferry-boat, 962
 —lion-hunting, 966
 —palace, colossal lion from, 949
 —at siege operations, 963
 —succeeded by Shalmaneser III, 878
 —triumphs of, 877
 —women captives, 368
Ashur-resa-ishi, defeated Nebuchad-
 rezzar I, 670
Ashur-uballit, king of Assyria, 671
Asia, African intercourse early, 3397
 —commerce, medieval, 2897, 2908,
 3114
 —Greek settlements, ancient, 992
 —Herodotus' knowledge of, 1533
 —Mongol conquest, 2014
 —ride and control, 2818, map, 2819
 —primeval forest, map, 436
 —races, early, 1127
 —Strabo on, 2075
 —trade routes, medieval, 2910, 2912
 —western, in ancient times, 1125, 1127
Asia, Central, Greek influence, 1501
 —history, early, 1081
 —medieval, 2015
 —10th–11th cent., 2770
 —Turks in 6th cent., 2770
Asia, Roman Provinces, 406, 1705, 1766
 —frontier, 1985–86
 —invasion by Mithradates, 1774
 —origin of, 1708
 —power, 1705
Asia, H.M.S., Codrington's flagship,
 3261
Asia Minor, Aeolian settlements, 977
 —Alexander the Great in, 1435
 —Crusaders' conquest, 2052
 —Darius in, 677, 883
 —Etruscan origin in, 708
 —Gauls in, 1620, 1627, 1585
 —Genoese trade, 2015
 —Greek colonists, 1901, 1047
 —influence, 1538
 —refugees from, 4920
 —settlements, 934, 935, 991
 —history, rôle in, 713
 —map (1580–900 B.C.), 658
 —(900–550 B.C.), 874
 —mountain walls of, 453
 —Myenaean objects from, 800
 —painted pottery, 150
 —Peoples of the Sea in, 795
 —pre-Roman dialects, 1993
 —races, 308, 716
 —Roman dominions, 1705, 1766
 —provincial system, 1844
 —Seljuk Turks' conquest, 2514
 —Serbs in, early, 2479
 —Trojan confederacy, 788
 —Turks in, 439, 2045
Asiatic Languages, map, 324
Asiarchs, status of, 1878
Asiatic Exclusion Act, U.S.A., 4605
Asiento, trading rights, 3760
Asine, Minyan culture in, 773
Askia, the Great, reign, 3407
Askold, exploits of, 2523
Asoka, Indian king, 1215–19, 1588
 —coins, 1495
 —conquests, 1588
 —edicts, 1215–16
 —and education of women, 378
 —missionary efforts, 1480
 —Persian influence, 1495
 —pillars of, 1209, 1216
 —shrines, 1204, 1207, 1212

Astronomy

Aspalta, funerary figure, 1009
Aspasia, bust, 307
 —responsible for wars, 3085
Aspelk, Arab. of Mainz, tomb, 3006
Aspendus, Pamphylia, ancient theatre,
 2053, 2056
Aspern-Essling, Napoleon defeated at,
 4104, 4193
Aspromonte, battle of, 4379
Asquith, Herbert Henry, Agadir inci-
 dent, 2589
 —at Imperial Conference 4625
 —on Roman Law, 2250
Ass, early Christians said to worship,
 2178
 —first domestication, 210, 222
 —hunting in Assyria, 967
 —in Mesopotamia, 560
Assassins, extirpation by Ilkigay, 2821
 —founding and methods, 2789
Assembly, in Hellenic Age, 838
 —Roman, 1795, 1800
Assignats, French revolutionary, 4137,
 4138
Assistance, Mutual, League of Nations
 and, 4930
Assyria, 875–91, 945–982
 —under Adad-illari II, 677, 870
 —agriculture, 880
 —Ashur the capital, 541
 —under Ashur-nasir-pal II, 870
 —after death of Shalmaneser III, 820
 —decline of, 831, 881
 —domination in Syria, 1177, 1179
 —fall of, 945, 1135
 —Jaffa and, 729
 —Ikkites and, 736, 800
 —independence from Mitannians, 957
 —map, 900–600 B.C., 874
 —ruled by Marduk-nadin-akhe, 876
 —rise and fall of empire, plate *f.p.* 402
 —Sargon, traditional hero, 431
 —social degeneration, 1200
 —verdict of history, 400
 —Western Asia conquests, 1132
 —women captives, 368
Assyrian Architecture, 947, 948
 —temple, 979
Assyrian Art, Ashurbanipal reliefs,
 880–91, 959, 964–69, 980
 —Ashur excavations, plates 954–55
 —Ashur-nasir-pal reliefs, 877, 961–3
 —bowl showing foreign influence,
 951
 —influence on Greek, 1030
 —ivories from Nimrod, 1007, 1008
 —man-headed bull, 1200
 —lion, 949
 —no influence on Palestinian, 811
 —Sennacherib reliefs, 830–31, 887,
 960
 —Shalmaneser gates, 879, 962
 —obelisk, 827, 880
Assyrian Literature, 949, 972
 —lexicon, 973
Assyrian Religion, 945, 977–80
 —altar offerings, 970
 —creation stories, 977
 —devils and demons, 971
 —priesthood, 969, 974, 978
 —witches and wizards, 971
Assyrian Science, 972–75
Assyro-Babylonian Language, 323
Astara, river, battle at, 735
Astarte, Ashtaroth or Ashlareth,
 goddess, 823
 —hippopotamus model, 833
 —identification with Atargatis, 2080
 —pottery objects from Beth-shan,
 822–3
 —site of temple, Beth-shan, 816
 —worship in Carthage, 1622
Astell, Mary, and women's rights, 393
Astor, Lady, first woman M.P., 380
Astrakhan, kinship of, 3017
Astrology, ancients' belief in, 2082
 —Assyrian science of, 977, 980
 —Babylonian sculptured stones, 976
 —Mesopotamia, science of, 976, 977
 —origin and development, 302–3
 —Stoic acceptance, 2082
Astronomy, 47–77
 —Aloxandrian, 2070–82
 —Ariste influence, 2534
 —Aristotelian theories, 47, 1403

Astronomy—*cont.*

- Assyrian science, 976, 980
- Babylonian, 976
- Coligny Calendar, 1529
- constellation drawing (c. 1300), 2535
- Copernican, 49, 59, 3340
- developed from astrology, 352
- Galileo's discoveries, 51
- Greek theory, 47, 48
- early discoveries, 1004, 1408-70, 1555
- later discoveries, 2063-61, 2070-82
- Heraclides of Pontus, 1481
- Hindu, early, 2403, 2406
- Ionian foundation of, 1004
- Kublai Khan, 2857
- Laplace, hypothesis, 52-53
- modern, Jeans on, 56-77
- Neolithic times, 618
- Plato's influence and teaching, 1481
- Ptolemaic system, 48
- Pythagorean contribution to, 1473
- Renaissance, 3330-40
- Sanskrit systems, 1504
- taught to Sumerian scribe, 532
- time perspective corrected by, 77
- See also* Cosmogony; Universe; World
- Asturians, submission to Rome, 1811
- Astyanax, of Media, Cyrus the Great and, 1083, 1085, 1141
- Aswan (Syene), early earth measurements at, 2072, 2073
- first Cataract at, 481
- unfinished obelisk from, 702
- Asyat, haron of: *see* Hupseta
- Atahualpa, capture by Pizarro, 3338
- death, 3305
- Atargatis, Syrian goddess, 2080
- Atbalario, heir to Theodoris, 2261, 2265
- Atbalah, mother of Abziah, 825-26
- Athanasius, Visigoth, 2268, 2272
- Athanasius, bp. of Alex., 2335
- Athaulf, king of the Goths, 2202-03
- Athensian, king, laws of, 2465
- Athens, goddess, 1294, 1373, 1378, 1380
- authority borrowed by Odysseus, 839
- Indian representations, 1491, 1496
- leaning on her spear, 1192
- Panathenaean, festival celebration, 1208, 1270-9, 1295-7
- Pantheon ceremony of placing Pheidias' statue, 1273
- sculptures, 1309, 1330
- Pergamum sculpture, 1091
- pleads for Odysseus, 850
- sculptures, 1192, 1375, 1376-7, 1380, 1691
- preparing peplos for, 1277, 1278
- temple of, Troy, 860, 871
- wind for libations to, 1276
- women worshippers of, in frieze, 1330
- Athenian citizen, tomb of, 1262
- Athenian Empire, commercial and judicial aspect, 1301
- currency, 1394, 1550
- Delian Confederation, 1232, 1393
- democracies, support of, 1304
- end of, 1245, 1240, 1398
- foundation of, 1230-32
- revolt of Lesbos, 1241
- rise and fall, 402, plate f.p. 402, 1387-1400
- sea-power, 1230-32, 1302-3, 1546
- Athenian League: *see* Athenian Empire
- Athenians, origins, 1039
- Athenian soldiers, tombs of, 1217, 1263
- Athens, Academy, gymnasium in, 1279
- Acropolis, 1110, 1111, 1274
- early settlement of, 1110
- fortifications, 1236
- plan, 1273
- reconstruction, 1275
- sculptures from, 1043, 1044
- shrines, ancient, 1013-41
- Agora, 1256-57, 1258, 1260
- Alexander's gift to, 1434
- allied states, 1391
- amusements, 1207
- archon in, 1118, 1121
- aristocratic party, 1093, 1112-16
- Assembly: *see* Ecclesia below
- banquet in, 1281, 1282
- becomes Aitile metropolis, 1044

Athens—*cont.*

- Bema on Pnyx, 1266
- Callirhoe spring, 1117
- Ceramici, 1208, 1273
- city beginnings, 1110, 1111
- city state, 1118
- Corinth, clash with, 1238
- class warfare in, 389
- Cleisthenes' reforms, 1091, 1120
- Cleon and, 1241-43
- colonisation system, 1237
- commercial position, 1259, 1543
- currency, 1115, 1519-50
- democracy, birth and growth of, 1119-22, 1266
- democratic party, 1093
- Dipylon Gate, cemetery at, 995, 997
- Draco's laws, 1042, 1118
- early art, 1039, 1012, 1043
- early, contrast with Sparta, 1033
- early currency, 1115
- Ecclesia, 1261, 1266
- Egyptian expedition, 1232
- Empire: *see* Athenian Empire
- Eumecionios fountain, 1117
- Erechtheum, 1275, 1293
- fifth century, 1251-97
- plan, 1256
- fleet, 1102
- foreign policy, 1545
- government, 1120, 1203-65
- height of power, 1235
- home life, 1285
- imperialism, 1231, 1238, 1242-43, 1545
- industrial conditions, 1201
- jury courts, 1264
- Long Walls, 1236, 1237, 1259
- restored, 1246, 1248
- Macedon and, 1404-05
- maritime activity, 1514
- market place: *see* Agora above
- Metroon, 1238
- Odium of Herodes Atticus, 1274
- pan-Hellenic proposal, 1235
- Parthenon: *see* Parthenon
- Pelistsratids and, 1093, 1115
- Peloponnesian League and, 1390
- Peloponnesian war: *see* Peloponnesian war
- Pericles and, 1237
- Persian war: *see* Greece
- plague in, 1240
- Pnyx Hill, 1117
- political evolution, 1118-19
- race, 1263-65
- population, 1122
- Propylaea, 1274, 1275, 1290
- resident aliens, 1261-62
- Samos, treaty with, 1215
- sen power, 1080, 1045-10: *see also* Athenian Empire
- Sicilian expedition, 1213
- siege by Demetrius, 1413
- Sulla, 1774
- sixth-century, 1043-45, 1003
- slavery, 1123
- Solon's reforms, 1042-44, 1118
- Spartan war of 457 B.C., 1235
- ston of Attalus, 1258
- the Giants, 1258
- Poikile, 1258, 1464
- Street of Tombs, 1267
- surrender to Sparta, 1246
- Theatre of Dionysus, 1344, 1316, 1347
- Themistocles' fortifications, 1236
- Thesaurion, 1292
- Thirty Years' Peace, 1236, 1239
- Tower of the Winds, 1681
- trade and industry, 1250-60, 1543
- trade regulations, 1540
- water supply, 1116, 1117
- women, status, 373, 1280, 1281, 1287
- Athens, modern, becomes capital of Greece, 4266
- captured by Venetians, 3753, 3754
- Athlete with strigil, 1301
- Athletics, Greek, 1304, 1312-20, 1509
- art and, 1305-1336
- clothing not worn, 1317, 1318
- prizes in, 1328-29
- sculptures of athletes, 1301, 1304, 1316-17, 1320-23, 1327
- on vases, 1323, 1326, 1328, 1329
- women and, 1299, 1323

Athos, Mount, monastery, 2627

- timber in, 467
- Atimetus, relief from grave-stone, 2091
- Atlantic Cable, history, 4698, 4699
- Atlantic Ocean, Phoenicians in, 1639
- river valleys in north, 28
- south, formation, 169
- Atlantis, Continent of, fable, 2567
- Atlas Mountains, formation, 110
- plateaux, 1173, 1177
- zone, 1171
- Atman, doctrine of the, 1206
- Atom, constitution, 5007
- Atomie Theory, Democritus and, 1170
- overthrow, 5007
- Aton, Akhnaton's god, 741
- Amen's worship replaced by, 666
- hymn to, 746
- royal homage to, 736
- temples, description, 715, 746
- Atreus, father a Phrygian, 790
- House of, 789
- treasury of, 730, 782, 869
- Atrina, satrap of Susa, 1999
- Atsiz, governor of Khoresmia, 2702
- Atsander, method, 3669
- Attahis, honour paid to Troy, 866
- Attalus, emperor, Goths, 2202
- Attalus I, of Pergamum, part in First Macedonian war, 1677
- portrait of, 1539
- sacred stone given to Rome, 2045
- victory over Gais, 1527, 1585
- Attalus II, stoa at Athens built by, 1258
- Attalus III, left kingdom to Rome, 1765
- Attariyas, Achaean leader, 737
- possibly Athens, 870
- Attica, agriculture, 1256
- area, map, 1106
- beehive tombs in, 785
- codes of law, 1041, 1118
- Cycladic settlement, 770
- history, 1039
- Jawdowning families, 1042
- language, 989
- products, 1182
- See also* Athens; Greece
- Attic Art: *see* Greek Art
- Attila, Hun chief, attack on Rome, 2207
- death of, 2207
- destruction of Aquileia, 3029
- E. and W. Empires, campaigns 2205-07
- Leo the Great's intervention, 2481
- Theodosius' embassy to, 2476
- Attis, moon-god, 2035-87
- Aubigny, Duchess of: *see* Querouaille
- Aubigny, Philip d', tombstone at Jerusalem, 2799
- Aubrey, on Avebury circles, 625
- Auerstadt, battle of, 1101, 1191
- Anfklarung: *see* Illumination
- Augsburg, taken by Gustavus, 3649
- Augsburg Confession of Faith, 3812
- Augsburg, Diet of, decisions, 3817
- Augsburg, League of, origin, 3744
- war with Louis XIV, 3753
- Augsburg, Religious Peace of, 3620, 3633, 3607
- Augura, Etruscan, 1644
- In robes, 1751
- Roman Colleges, 1750, 1751
- in Rome, 1653
- Augusta Emerita: *see* Merida
- Augustales, duties of, 2003
- Augustan Age, art in, 1919, 1920
- Latin literature in, 1848, 1890-93
- metal working in, 1939, 1940, 1941
- sculpture in, 1892
- Augusta Treverorum: *see* Treves
- Augusti, title of Roman emperor, 1978
- Augustin I (of Mexico), 4324
- Augustine, S., of Canterbury, Intro duces Christianity, 2271, 2327, 2445
- Augustine, S., of Hippo, 2324, 2327
- asceticism and, 2333
- City of God, 1898, 2223, 2325, 3021, 3022
- Confessions, 2325, 2333
- Manichaeism, 2309, 2333
- medieval importance, 3017
- Platonism, 2097, 2224
- Punle-speaking bp. appointed, 1999
- ridicule of Roman gods, 1999
- Trinity, conception of the, 2336

Augustinians: *see* Austin Canons;
 Monastic Orders
Augustus, Roman emperor, 1811,
 1843-49, 1862-78, 1893
 —adoption by Caesar, 1789
 —altar with lares, 1876
 —of peace, 1862, 1869, 1900, 1919,
 2241
 —and army, 1718-20, 1860
 —campos, 1818, 1938, 1940
 —conquests, 1841, 1870-71
 —consolidation of empire, 406
 —crowned by Fortuna, 398
 —deification and worship, 1818, 1876-77
 —family, 1810-17
 —feminine influence under, 3980
 —Flaminian Way improvements,
 2038 9
 —as emperor, 397, 398, 1818
 —influence on elections, 1867
 —Mark Antony, and 1791-93
 —military tactics, 1729-30
 —peace aims, 1860, 2227
 —political testament, 1872
 —as Pontifex Maximus, 408, 1865
 —portraits, 1791, 1795-10, 1864, 1865,
 1920, 1935, 1940
 —prayer to the Fates, 1716
 —religious organization, 1753
 —Republic restored by, 1863
 —social reforms, 1865, 2001-3
 —succession problem, 1780, 1818, 1873
 —superstitious, 1902
 —temple built by, 1753, 1758
 —Tiberius, adoption of, 1848
 —Troy rebuilt, 840
 —Vergil and Horace praise, 1890-91
Augustus II of Saxony (the Strong),
 becomes King of Poland, 3754
 —death, 3885
 —deposed from Polish throne, 3702
 —portrait, 3885
 —returned to Polish throne, 3703
Augustus III of Saxony, accession, 3885
 —allied with Austria, 3893
 —death, 3911
 —married d. of Joseph I, 3884
Aula Council, 3588
Aulus Plautius, Roman commander,
 1854
Aurangzeb, 3772, 3774, 3775
 —fatal ambition, 3798
 —impulsive Shah Jehan, 3775
 —Mogul empire under, 3763
 —receives an embassy, 3777
 —seizes the throne, 3777
Aurelian, emperor, 2110-20, 2123
 —Paul of Samosata and, 2382
 —portrait, 2119
 —Rome's walls built by, 2110, 2120
Aureolus, Roman, rebellion, 2118
Aures, mountain range, 1173
Auriga: *see* Chariotter
Aurignacian Period, burial, Grotte des
 Enfants, 217
 —cave-dwellings, 141, 260
 —charm from mammoth tusk, 250
 —diagrammatic plate, f.p. 220
 —engravings, 198, 254, 258-59
 —flint tool, 27, 37
 —in Italy, 612
 —Ivory carvings, 215
 —regional chronology, 220
 —sculpture, 253
 —skull, 209
 —statuettes, 198, 200
Aurora, Russian ship, in Bolshevik
 revolution, 4963
Ausonius, poet, style, 1898, 2224
Auspires, 1643, 1644
See also Augurs; Divination
Austan, Jane, as aid to history, 14
Austariltz, battle of, 4098, 4100, 4180
 —meeting of emperors after, 4180
 —twilight dance on eve, 1441
Austin Canons, foundation, 2050, 3419
 —medieval reforms, 2284, 2285
Austin Friars, habit, 2280
 —organization of, 2284
Australia, all-white, 320
 —Altad system, 106
 —annexed by Gt. Britain, 3010, 4110
 —colonisation of, 411, 4508
 —Commonwealth proclaimed, 4612
 —discovery of gold in, 4393

Australia—cont.
 —dominion status, 411
 —economic history, 335
 —effect of trade winds, 330
 —fauna, 131
 —Federal Commonwealth (map), 4008
 —German and zinc mines, 4089
 —isolation, 209
 —navy of, 1624
 —penal settlement, 1598
 —political development, 4611
 —post-Cretaceous, 100
 —socialist movement in, 4089, 1993
Australian Aborigines, and ape, 108
 —boomerangs, 210, 277
 —bull-roarer, 209
 —ceremonial objects, 300
 —club, 276, 277
 —cranial capacity, 156
 —fire-making, 285, 286
 —Gov. Davey's proclamation, 4609
 —hunting life, 210, 272
 —mummification practised, 200
 —mystical side, 283
 —myring-sticks, 283
 —primitives, 210, 212
 —primitive implements, 210, 271,
 272, 275
 —and primitive man, 169, 174, 195,
 209, 311
 —shingle, 294
 —spear thrower used by, 249, 270
 —totemism, 210, 272
 —'wurlay,' primitive shelter, 288
Australian Commonwealth Act, 4612
Australopithecus: *see* Taungs Ape
Australa, development of, 2106
 —suppression from Neustrelia, 2506
 —under Franks, 2269
Austria, annexed Bosnia, 1578
 —Battle of Smolensk, 3000, 3091
 —excluded from Zollverein, 4370
 —expelled from Germany, 3014
 —financial collapse, 4910
 —France declares war on (1792), 4171
 —Italy declares war on (1916), 4756
 —and League of Nations, 4926
 —Napoleonic allied state, map, 412
 —persecution of Protestants in, 3027
 —post-war tuberculosis, 4906
 —revolution in, 4307
 —signs armistice (1918) 4784
 —Socialism in, 4988, 4992
 —war with Turkey (1710), 3880
Austrian Succession, War of, 3880
 —map illustrating, 3898
Autocracy, in Brandenburg under
 Frederick William, 3750
 —in Greece, 1116
 —national spirit and, 3605-17
 —in Russia, 3761, 3919, 3921, 1875,
 4939-40
 —10th cent., 3481
 —of Septimius Severus, 1979
 —in Sicily under Frederick II, 2842
 —when justified, 1110
Autolycus, of Pitane, astronomer, 1480
Autua, cathedral, 2869
Avaricum, Roman siege of, 1731-2
Avars, tribe, conquer Hungary, 3148
 —decline of power, 2477
 —defeat by Pepin and Charlemagne,
 2418, 3147
 —Eastern Empire, 2272, 2476
 —in Europe, 2270, 3147
 —meanings of name, 2477
 —origin, 2206
 —Slav alliance and fusion, 2476-8
Avestary, megalithic circle, 624, 625
Avempace, philosopher, teachings, 3293
Avenzoar, physicians in Cordova, 3200
Avstrus, Lake, naval harbour, 2034
Aysroos, Arabian physician, 1500, 3202
 —at Khalif's African court, 3391
 —medieval importance, 3017
 —text book in Italian univs., 2533
Aversa, Italy, Norman centre, 2015
Avery, Captain, plate, 3817
Avstta, Zoroastrian scriptures, 638,
 2307
Aviation, Leonardo's treatise, 3233
 —war-time progress, 4786
Avicenna, Arab, physician, 1500, 2535
 —medieval importance, 3017
Avidus, Cassius: *see* Cassius Avidius

Avignon, papacy at, 2995, 3064, 3066
 —papal Palace and walls, 3062
Avitus, proclaimed emperor, 2208
Azayacah, Aztec ruler, 3305, 3373
Aza, Aryan, 506
 —Bronze Age, 911-2
 —double, Alhoun, 603, 607, 768
 —Etruscan parallel, 1155
 —of Egyptian hunter, 483
 —Germanic, 1219, 2221
 —hand (bonchers) Chelleau, 146, 189,
 244
 —from lake dwellings, 268
 —Scythian, plate 927
 —stone, ancient and modern, 271
 —from Cretu, 591
 —Trojan, Dumbarton connexion, 850
Ay, k. of Baryu, 600, 667, 748, 751
 —lynn to Aton, 747, 748
 —married Alhoun's nurse, 751
Ayacucho, Bolivar's victory at, 4321
Ayazasa, Lion's rock, 1095
Ayasha, Alahouet's wife, 2315, 2319
Aylesford, Kilt's Coty House, 620
 —pit graves, 1512, 1520, 1521
Ayub, Afghan leader, 4409
Ayyubid: *see* Eybid
Azapotzaco, Aztec and, 3362
Azerbaijan, League of Nations applica-
 tion, 4026
 —Seljuk tomb, 2785
Azilian Period, cave-dwelling, 144, 265
 —chronology, 220
 —end of great hunters, 617
 —pebbles, 265
Aziru, the Amorite, 600-67
Azores, 317, 3530
Azov, ceded to Peter the Great, 3754
 —cyded to Turks, 3703
 —Peter the Great at siege, 3761
Aztec, civilization and life, 3360-77
 —conquest of Mexico, 470, 3362-65
 —dress, 3374, 3375
 —fire making, 280
 —writing of, 36, 1064, 1065: *see also*
 Aztec Art, MSSs, below
Aztec Archaeology, 3375-78
 —temples 3363, 3365
Aztec Art, 3370
 —MSSs, 3361-65, 3360, plate f.p.
 3371, 3371-75
 —metal work, 3376
 —mosaic, plate f.p. 3370
 —pottery, 3376, 3377
 —sculpture, 3360, 3360-68, 3370
Aztec Empire, 3304, 3361-77
Aztec Religion, 3364-69, 3370

B

Ba, in Egyptian religion, 643
Bab, allied to Bel, 583
 —Bas represented as, 1029
 —in Canaan, 823
 —identification with Yahweh, 650
 —Israelish local gods, 640
 —worship by Omri, 820
Baalbek, temples at, 1916
Baal-Haman, Carthaginian god, 1620,
 1622, 1624-1626
 —identity with Saturn, 1982
Baal-Moloch, Phoenician god, 1622
Balsillec the Rab, sarcophagus, 1621
Bascha, assassinated Nadab, 810
Babar, Mogul emperor, 2859, 3300-07,
 3745-67
 —founded Mogul line, 3167, 3170
 —receiving deputation, 3783
 —victory at Panipat, 3167, 3170
Baba Tahir, poet, 2701
Babel, Tower of, in Babylon, 010
 —Marduk's tower, 528
 —reconstruction, 568
 —significance of, 231, 303, 528
 —temple of Nub, Borsippa, 569
Babeluf, Graecus, 1413
 —and communism, 4070
Babiss' bottles, 500 B.C., 1287
Babington, Sir Anthony, plot against
 Elizabeth, 3555
Babiri, Papuan tribe, 211
Babylas, of Antioch, death, 2180
Babylon, city, 945, 947-53, 950-58
 —captured by Mursil I, 780
 —conquest by Alex. the Gt., 1407

Babylon—cont.

- degeneration of social life, 1199
- Gates of Ishtar, 949, 951-53, 956-57
- in Hammurabi's days 568, 572-84
- Hittite sack, 429
- Israel's culture derived from, 813
- Jerusalem destroyed by, 1043
- Ka-r, S. citadel, 950, 953
- Kassite dynasty at, 434
- Marduk's temple (E-sagila), processional way, 570, 952, 953
- — — (E-tonion-an-ki), 528, 563, 949
- Nebuchadnezzar's palace, 950-53, 956-58
- Nin-Makh, temple, 1112
- Persian conquest, 1036
- religious ascendancy, 321
- Sennacherib's sack, 400, 888
- stele of Ishtar from, 727
- Tiglath-Pileser I's entry into, 676
- Babylonia**, alliance with Amenhotep III, 605
- — — with Aramaeans, 873
- — — with Darius IV, 504
- annexments, 681
- Arab-Alpine line in, 457
- boundaries, 429
- initial methods, 534
- cities as entrepôts of trade, 453
- commercial interests in, 875
- conflict with Achaemenid, 876
- conquest of Assyria, 615
- Cyclopes, influence on, 408
- Cyrus' conquest of, 1339
- Darius the Great and, 401
- dependence on Assyria, 607, 870
- dress in earliest, 514, 531-5, 540-11
- — — in Hammurabi's age, 572, 573
- formation, 455
- Hammurabi, in days of, 567-88
- history, 875, 881, 945
- house-planning in, 532
- inter-city quarrels in, 459
- Jews influenced by, 1045
- kingship in, 950, 431, 434, 535, 572, 573, 647-8
- maps, 455, 874
- marriage laws and customs, 370, 570
- mycent communities of, 430, 453
- organized religion in, 638
- Palestine subject to, 809
- priestly politics, 461
- records, antiquity & wealth, 453, 450
- revolt against Assyria, 881
- — — Tukulti-Ninurta, 673
- rise and fall of empire, plate *f.p.* 402
- Semitic-Sumerian civilization in, 459
- sluk-draim, religious use, 531
- slave status in, 458, 525, 574
- Sumerian: *see* Kish; Sumeria; Ur
- superstitions, modern analogies, 349
- Tiglath-Pileser III. dealings with, 884
- trade with Cyprus, 610
- uninfluenced by Egypt, 1007
- urban life in, 520
- See also* Assyria; Babylon
- Babylonian Architecture**, 950-2, 957-8
- — — house, 670, 671
- — — at Kish, 515
- — — Marduk temple, 568-69
- See also* Assyrian Architecture; Sumeria; Ur
- Babylonian Art**, enamelled tiles, plates, 953, 956
- — — metal work of, 535
- — — no influence on Palestine, 811
- — — sculpture, 572-73, 575, 585, 976
- — — seals, 537, 580, 587
- See also* Assyrian Art; Sumerian Art; Ur
- Babylonian Literature**, 539, 945, 971-2
- Babylonian Religion**, conception of the world, 974, 975
- — — Creation legends, 974
- — — divine bull of, 642
- — — household gods, 540
- — — influence on Assyrians, 945
- — — model for divination, 351
- — — status of god in, 945
- — — sun god, 640
- — — views of death, 640
- Babylonians**, cuneiform script, 725
- early writing, 36, 518
- inventions, 977
- voyages, 1011

- Bacchanalia**, in Rome, scandal and suppression, 1715, 2180
- Bacchanalian conspiracy**, 1805
- — — propagation of rites in Italy, 1716
- — — sexual rites, 3259
- — — visiting a tragic poet, 1892
- Bach, John Sebastian**, portrait, 3957
- Bach, Wilhelm Friedemann**, organ concerto, 4316
- Backed animals**, emergence of, 43, 93, 97, 98
- Backgammon** (tables), Middle Ages, 3448
- Bacon, de, family**, monumental brass, 2923, 2029
- Bacon, Francis**, impeachment, 3670
- — — on observation in medicine, 3339
- — — portrait, 3337
- — — Renaissance & modern spirit, 3333
- — — scientific method, 3323
- Bacon, Nathaniel**, rebellion, 1022
- Bacon, Roger**, experiments, 3319
- — — imprisonment, 3339
- — — influence on Renaissance, 3222
- — — scientific methods, 3049
- Bacteriology**, new science, 5051
- Bagdadi, Alexander's conquest**, 1488
- conquest by Hsing-mu, 1981, 2100
- culture shown by coins, 1491, 1493, 1495
- decay of, 1704
- early independence, 1490, 1491
- Greek column at Bagdad, 1505
- Hellenism in, 1490-91
- medieval importance, 2912
- Bagdadi, invasions into India**, 1704
- tribute to Xerxes, 1110
- Badari**, settlement of, 481
- Badarian Culture**, in Egypt, 37, 461
- — — pottery, 37, 38
- Baden**, German ship sunk, 4833
- Badulla**: *see* Totila
- Bagdad**, Abbasid times, 2531-33
- — — caravan, mosque and shop nt, 13th cent., 2531-33
- — — founding and importance, 2531, 2532
- — — Gate of the Talmud, 2523
- — — houses resemble those of Ur, 532
- — — immigration of k. Felsul, 4642
- — — learning centre, 2535
- — — illumes destroyed by Mongols, 2785
- — — occupied by British (1917), 4772
- — — Palestine subject to, 811
- — — Seljuks in, 2782
- — — siege by Hulagu, 2821, 2824
- — — view from air, 454
- See also* Arabic Culture; Irak
- Bagdad Railway**, authorisation, 4565
- Baghdad**, barbarian chief, 2100
- Bagpipes**, ancient origin, 290
- — — the Devil's Reformation, 3365
- — — medieval, 2964
- Badshah Shah**, in Indian Mutiny, 3703
- — — portrait, 3799
- Bahlol Lodi**, Delhi empire revival, 3123
- — — reign, 3170
- Bahmani Dynasty**, founding, 2993, 3123
- Bahram V**, Gur, 2311
- Babars**, sultan, 2827, 2832
- — — defeat of Mongols, 2822
- — — Jerusalem held by, 2827
- Ballou, Guillaume de**, epidemic theory, 3114
- Bailly, Jean S.**, mayor of Paris, 4161
- — — president of National Assembly, 4158, 4159
- Bain, Alexander**, and the association school, 4582
- Bairam Khan**, regent for Akbar, 3707
- Bajazet**, Ottoman ruler, 2994
- — — European advance, 3008
- — — prisoner of Tamerlane, 3121
- Baji Rao Peshwar**, defeated by Holkar, 4449
- Baker, Sir George**, on seasonal colic, 6044
- Bakers**, Babylonian, 582
- — — Egypt, models, 555, 560
- — — republican Rome, 1822
- — — Roman memorial, 1823
- Bakery**, Grande Encyclopédie, 4123
- Baladava**, battle of, 4374

- Bala limestone**, laid down, 95
- Balas**, aid asked by Leontius, 2257
- Balban**, ruler in India, 2833
- Balbinus**, emperor, 2111
- Balboa**, Nuñez de, in Darien, 3537
- Baldwin I**, of Jerusalem, 2651, 2750
- — — in Edessa, 2652, 2798
- Baldwin II**, of Jerusalem, 2654
- Baldwin III**, of Jerusalem, 2654, 2741, 2742
- Baldwin IV**, of Jerusalem, 2742
- Baldwin V**, of Jerusalem, 2742
- Baldwin, Stanley**, British premier, 4591, 4892
- — — on Greece, 402
- — — and Locarno Pact, 4922
- — — tariff reform pledge, 394
- Baleare Islands**, Carthaginians in, 1633
- — — pirates in, 3502
- — — Pto's expedition against, 2755
- — — Sarcens driven out, 2827
- — — talayots, 614
- Balfour, Lord**, on applied science, 4791
- — — signs Peace Treaty, 4575
- Balkan League**, formation, 4581
- Balkan Mountains**, 1983
- Balkan Peninsula**, broad-heads in, 228
- — — Bronze Age inhabitants, 1031
- — — changes, 1878-1914, 4531
- — — Illyrian invasion, 987, 992
- — — nationalism dominates economies, 396
- — — Slav migration into, 2475, 2477
- — — Turkish conquest, effects of, 410
- Balkan War**, second, rulers in, 4582
- Ball, John**, priest, and Wat Tyler, 2099
- Balla Giacomo**, Centrifugal Force, 5030
- Ballantrae**, yellow lava near, 95
- Ballarat**, gold discovered at, 4009
- Ball games**, Egypt, playing at, 553, 553
- — — Galen's treatise on, 1327
- — — Greek, ancient, 1317, 1310
- — — religious associations, 354
- Ballista**, cannon's origin from, 2050
- Balmaceda**, president of Chile, 4331
- Baltic Civilization**, early, 2516
- Baltic region**, amber trade, 239
- — — commercial centre, medieval, 2809
- — — ice age, 2214
- — — medieval German towns, 2050
- — — Neolithic trade with Adriatic, 619
- — — post-war states, 4880
- Baltimore**, rioting in (1877), 4516
- Baltimore, Lord**, founded Maryland, 4007
- Baluchistan**, Alexander in, 1109, 1446
- Balzas**, Honoré, Dickens compared with, 4512
- Bandi**, court painter of Akbar, 3769
- Baner, Johann**, at Breitenfeld, 3043
- — — succeeds Bernard of Saxe-Weimar, 3053
- — — at Wittstock, 3053
- Banger Abbey**, Ireland, early school, 2070, 2081
- Banking**, ancient methods, 1550-52
- — — concentration, 5000
- — — Greek, 1550-1
- — — and industrial enterprises, 4997
- — — Italian, medieval, 2897, 2899
- — — Knights Templars, 2897
- — — medieval, 2897
- — — Roman, 2131
- — — in U.S.A., reforms, 4725
- Bank-note**, Carthaginian 1641
- — — Ming, 5506
- See also* Assignats; Currency
- Bankside**, Southwark, 3558
- Bannockburn**, battle of, 2996
- Bantia**, Ocean Inscription from, 1807
- Bantry Bay**, British fleet defeated, 3748
- Bantu Peoples**, 3395-97
- — — crafts of, 234
- — — hereditary kingship, 235
- — — land rights, 236
- — — languages, 324-25, 327, 3390
- — — moderate long-heads, 227
- — — political system, 10th cent., 3300
- — — religion, 3396
- — — use and origin of word, 3395
- See also* Kaffirs
- Banu Kasi**, origin and history, 3267
- Banu Nadir**, Mahomet at siege of, 2371
- Baptism**, early Christian, 2175
- Barbados**, granted to E. of Carlisle, 3809

- Barbarians**, invade Italy, 2201, 2205
 — northern, history of, 2211–22
 — Rome's struggles against, 2201, 2205, 2210, 2232
 — vanishing hostility to, 2225
 See also Goths; Huns; Ostrogoths; Teutons; Vandals
Barbarossa (consul): *see* Ural
Barbarossa, Frederick: *see* Frederick Barbarossa
Barbary, attack on pirates, 3315
 — corsairs of, 3400, 3804
 — horse early domesticated, 312
 See also Algiers
Barbusse, Henri, communist, 5078
Barcelona, county of, position, 2647
Barcelona, League of Nations at, 493
Barclay, Alexander, 'Belogues', 3188
 — 'Ship of Fools', 3189
Barclay de Tolly, Michael, Russian leader, 4195
Bardas, uncle of emp. Michael, 2425
Bardi, Florentine house, Edward III of England and, 3658
Bards, Gaulish, 1514
 — rhythmic, early, 2050
 — Teutonic, 2218
Bar Hill, Roman relics, 2116
Bar, Italy, Byzantine capital, 2692
 — cathedral, 2701
 — William I and II of Sicily in, 2693
Barllan, French ambassador, 4003
Barker, Granville, plays, 5016
Barkiyarak, 2792
 — Nazim al-Mulk's support, 2790
Bar Kokiba, revolt of, 1565, 1601
Barlaam and Joseph, story of, 1503
Barley, early cultivation, 218
 — in Egypt, ancient, 402, 488
 — in Mesopotamia, 513
 — spread to China, 116
Barmaeic Family, 2112
Barnea, E. W., bp., on religious doubt, 1800, 4805
Barometer, invented by Torricelli, 3825
Barons, medieval, 2667–68
 — castle importance, 2668
 — judicial combat, 2667
 — in Norman England, 2723
 — tollage, 2672
Barons' Wars, in England, cause, 2830
 — influence on government, 2828
Baron, Tomb of the, 1169
Baroque architecture, 1566, 3970
Baroque, creeping, at Maunabo, 4768
Barra-munda: *see* Ceratodus
Barrao de Valloria, cave-paintings, plate, 201
Barras, head of Directory, 4091, 4146
 — and women, 4148
Barrekub, in Ifritte relief, 736
Barrel vault, Gothic adaptation, 2809
 — Roman, 2632–33, 2866
Barrow Tams, 633, 634, 636
 — —Scythian, 930, 931
Barry, Mme. du, portrait, 3908
Barter, in ancient Egypt, 701
 — Bronze Age, 900, 937
 — primitive man, 202
Barton, Bridgewater Canal at, 4345
Baruch, Apocalypse of, 1600
Barysphere, inner shell of earth, 79
Bassari, conflict with Tughril, 2782–3
Basawana, court painter of Mogals, 3779
Besoinet, helmet, 2028, 2029, 2030
 — men-at-arms wearing, 2948
Basel, Johann Georg, educational system, 3953
Basel, Council of, anti-papal character, 3138
 — monastic reforms, 2285
Baspha, Mongolian alphabet of, 1002
Basil I, emperor, 2425, 2408
 — campaign against Saracens, 2408
 — navy strengthened, 2620
Basil II (Bulgarectonus), emperor, 2511–12, 2513
 — Bulgarian conquest, 2478, 2512, 2513, 2020
Basil III of Russia, Herberstein ambassador under, 3923
Basil, S., rules for monasticism, 2275
Basil, eunuch chancellor, slaves and retainers, 2020
Basli, son of Timothy, Cossack, 3924
Basilica, 2801, 2881
 — Christian type and origin, 2185
 — pre-Christian, 2184
Basileus, emperor, defeat of fleet commanded by, 2208
 — Zeno and, 2209, 2255
Baskerville, John, type designs, 3195
Basket-work, American, early tribes, 2570, 2571, 2573, 2600
 — on Cretan bowl, 463
 — efficient utensils of, 287
Basque Language, 806, 807
 — localisation, map, 321
 — unknown origin, 324
Basques, religious fanaticism, 3082
Basra and Bagdad Railway, 4565
 — captured by British, 4754
Bassein, Treaty of, 4449
Basarnaa, Teutonic tribe, 2212
Bastille, storming of, 4070, 4081, 4140
Bastland under imperial govt., 4023
Batavian Republic compelled to side with Napoleon, 4188
 — proclamation, 4090
Bath, in 18th century, 4254
 — Gorgon head from temple, 2151
 — introduction in Pump Room, 4254
 — Roman spa, 2147, 2151
Bathing, mixed, in Roman times, 2016
Bathori, Stephen, Polish leader, 3921
Baths, ancient, at Akhetaton, 685
 — at Onosus, 762
 — Mycenaean, at Pirus, 781
 — Omnid, Kueschir Amt, 2530
 — in pre-Aryan India, 451
 — Roman, 2015, plate f.p. 2020, 2021, 2151
Battalion of Death, women soldiers, 375, 4053
Battering-rams, Assyrian, 883
 — Norman, 2610
 — Battle: *see* Army; Warfare
Battle-axe, Egyptian infantry, 681
 — evolution of, 287, 288
 — Minoan, 607
Battle-cruiser, H.M.S. Lion, 4831
Battledore and Shuttlecock in 18th century Germany, 3952
Battleship, Line of, Great War, 4831
 — *See* Navy; Ships; Warships
Batu, Mongol chief, 2850
 — Khanate in Caspian, 2817
 — Russian conquests, 2850
Batwa, tomb, neolithic style, 3170
Bau, marriage with Ninurta, 643
 — Sumerian goddess, 639, 648
Baur, Dr. Otto, and nationalisation, 4992
Bau-Gala, priestesses of, 580
Bavaria, agrarianism, 5072
 — elector made king, 4191
 — quarrel over succession, 3913
Baxter, Richard, on Cromwell's troops, 3727
 — on Falgell, 3723
 — on Puritanism, 3716
 — portrait, 3716
Bayard, chitau, tapestry, 872, 873
Bayeux Tapestry, Comm II at Dinan, 2610
 — episodes in Conquest, 2508
 — Harold hunting, 2610
 — Norman armour, 2607, 2027
 — Norse ship of Normans, 2604
 — William's castle at Hastings, 2714
Bazaar, in Babylon, 681
 — in Bagdad, 2531, 2532
Bazaine, General, in Metz, 4385–86
Beachy Head, French defeat British fleet, 3743
Beaconsfield, Earl of, 4307
 — and Cyprus, cartoon, 4554
 — and Franciscan Reform, etc., 302–3
 — Imperialism, 397
 — social reform, books, 4405
 — statuette, 4396
 — and Suez Canal shares, 4557
 — and Trade Union law, 392
Beads, materials, anc. Egypt, 358–9, 480
 — necklaces, Phoenician, 1640
Beagle, Voyage of the, 311
Beaker, Anglo-Saxon, 2458
 — four types, 633
 — German and English, 31
Bea, cults, past and present, 189, 192
 — drawing of, Feyjat, 268
 — in England, 31, 130
 — Magdalenian clay model, 251, 252
 — sacred to Aurignacians, 250
Bea bailing in Elizabethan times, 3568
 — by English buildings, 2902
Beard, Babylon, royal privilege, 535
 — Carthage fashion, 1617, 1618
 — in Egypt, 485, 480, 548
 — Hadrian, first emp. to wear, 1925–26
Bea Garden, Southwark, 3563
Beatrixe de Valois, w. of Matthias, 3157, 3159
Beatty, Sir David, 4831, 4813
Beau, meaning of word, 4212
Beauharnais, Eugène de, married k. of Bavaria's daughter, 4191
 — portrait, 4699
 — victory in Italy, 4080, 4090
Beauharnais, Josephine de: *see* Josephine, empress
Beaumaris Castle, 3424
Beauty, Greek ideas, 1100, 1320
 — human body in Greek art, 1327, 1332
 — modern ideas, 1329, 5025: *see also* Modernism
 — primitive appreciation, 203
Beauvais Cathedral, 2874, 2885, 2887
Bebel, August, German socialist, 4986
Bea, ministry, 2011
Becarra, Cesare, Marohese do, on prison reform, 4076, 4124
Beche, Abbot, execution, 3197
Bechnaland, and Union of South Africa, 4023
Becket, S. Thomas, assassination, 2741
 — carrying, Exeter Cathedral, 2881
 — Henry II's conflict with, 2730
 — vestments, 2740
Beckford, William, and Fontinell Abbey, 4305
Bele, Venerable, 2600
 — Ecclesiastical History, 2165
 — —pleasure of Bedwyl's comb, 2459
Befford, John, d. of, 3120, 3132
 — —Joan of Arc and, 3131
Bedroom, in Herold Age, 841
Beda, four-poster, 3441, 3442
 — in Herold Age, 812
 — from Anna's tomb, 701
 — 13th cent., 2731
 — Turkankhanen's, 699
Bodinus, and Basaril, 2782–3
 — bringing gifts, 547
 — —of Israel, 813
 — modern ancestors, 511
Beehive Tombs, in Boethia, 785
 — at Mycenae, 780, 782
 — —dynasty in Mycenae, 800
 — —Trojan, 1158
Beer, ancient Egypt, 488, 552
 — Middle Ages, 3442
 — Teutonic races, 2468
 — Tudor, 3444
Beer, Max, and term 'socialism', 4982
Beethoven, Ludwig von, classical or romantic, 4316, 4317
Beggars, Elizabethan, 3489, 3477
 — Netherlands patriots, 3468, 3470
Belaim, Martin, globe, 361, 3532
Behistun, Rock of, sculptures, 1090, 1129
Beightan, Henry, and Newcomen's engine, 4351
Beirut, fall of (1013), 4781
Bekotaton, sister of Akhetaton, 746
Bel: *see* Enlil
Bel-akhe-riba, grant of land to, 881
Belam, sacked by Indians, 4320
Belesme, House of, cruel deeds, 2600
Belfort, gap of, importance, 1872
Belgica, in Roman Gaul, 1782
Belgium, achieves nationality, 3016
 — first king, 4271
 — Germany violates neutrality, 4688
 — an independent monarchy, 413, 4270
 — invaded by Dutch, 4271
 — post-war reconstruction, 4906, 4916
 — resistance to Germany, 4742, 4745
 — socialism in, 4088
 — Spanish oppression medal, 3470
Belgrade, besieged by Eugene, 3880
 — captured and lost, 3754
 — ceded to Siamund, 3121
 — —Tumay'd's defence, 3150

- Bel-ibni**, king of Babylon, 887
Belisarius, 2285-67
 —Africa reconquered by, 2262
 —Carthage conquered, 2252
 —Germanic peoples defeated, 2214
 —in Nika revolt, 2297, 2208
 —portrait, 2266
 —troops, 2204
 —Vandals defeated, 2214, 2205
 —wife of, 2205
Bell, Alexander Graham, electric telephone, 4730
Bell, Henry, the 'Comet', 4353
Bell, Johannes, signs Peace Treaty, 4875
Belle-Isle, French statesman, 3892
Bellerophon, married king's daughter, 449
Bellerophon, H.M.S., Napoleon on, 4109, 4193
Bellini, Gentile, painting, festival of S. Mark, 3040
 ——portrait of Mohammed II, 3121
 ——school of, portrait of Doge, 3045
Belini, Giovanni, portrait of Doge Loredano, plate f.p. 3044
Bello, Milano, 5010, 5017
Bello Horizonte, capital of Minas, 4331
Bellona, on Roman coin, 1612
Belovaci, coin, 1525
Bellows, anc. Egypt, 700
Bolly, Jean de, Catherine II and Turkish embassy, 3940
Belshazzar, son of Nabonidus, death, 1086
 —government for father, 1083
Bem, Hungarian leader, 4370
Bembo, complexity of character, 3218
 —humanism renounced, 3233
Benecci, 1st and 2nd Period, in Etruscan archaeology, 1152
Bonbow, on a general strike, 4671
Bine, Amaury de, pantheism, 3010
Benedict, S., 2270, 2266
 —rule of, 2270, 2283
Benedict, antique (1400), 3185, 3136
Benedict III, pope, denounces Byzantine patriarchy, 2425
Benedict IX, pope, 2773
 —papal chair sold, 2771
Benedict XI, pope, residence out of Rome, 2095
Benedict XII, pope, monastic reforms, 2285
Benedict XIV, pope, and Jesuits, 3085
Benedictines, habit, 2289
 —medieval reforms, 2281, 2285
 —nuns in choir, 387
 —organization, 3418
 —reform in France, 2285
 —rule of, 2270, 2283
Benevento, Duchy of, conferred on papacy, 2505
 —independence, 2417, 2751
 —Langobard principality, 2092-3
 —struggles for, 2121, 2125
Benevento, Treaty of (1156), 2695
Beneventum, Latin colony, 1807
 —Roman victory near, 1608
 —Trajan's Arch, 1028
Bengal, administered by E. India Co., 4443
 —breaks away from Moguls, 3798
 —partition, 4470
Benhadad, king of Damascus, 820, 878
 —murdered by Hazael, 879
 —war with Shalmaneser, 870
Benioasim, town, 3267
Beni Hasan, paintings, plates f.p. 552-3
 ——tomb of Amen, 503, 548, 545
 ——wall-paintings, 547, 554-55, 557
Benin, bronzes from, 293, 294
Benin, Bight of, in Fra Mauro's map, 3530
Benjamin, tribe of, Rachel group, 812
Benjamin, archbp. of Petrograd, shot, 4071
Benjamin, of Tndela, account of Palermo, 2791-2
Benoitt, Arnold, 5015, 5016
Benham, Jeremy, and constitutional reform, 4282
 —philosophy, 4070
 —portrait, 4280
 —on result of Waterloo, 4270
 ——utilitarianism, 4533
Bentinek, Lord William, Indian reforms under, 4457
Benton, Thomas Hart, supporter of Andrew Jackson, 4501
Beowulf, Epic, 2456
 —Germanic peoples in, 2212
 —visit to Danes, 2220
Béranger, Pierre Jean, political satirist, 4291
Berbers, Atlas, characteristics, 228
 —dynasties, culture, 3275
 —dynasty of zealots, 3393
 —language range, maps, 324-5
 —moderate long-head, N. Africa, 229
 —present day, 3207
 —in Spain, 3266, 3268
 —Sultan, 3393
Berengar I, emperor, 2495
 —campaign against Saracens, 2498
Berengar II, of Italy, made king by Otto, 2501
Berence, on Red Sea, 1542
Bere Regis, church roof, 3495
Beresford, William Carr, governed Portugal, 4257, 4261
Beregovka, mammoth carcase from, 191
Bergamo, Philip, of, handing book to Queen Matrice, 3159
Bergen, Hanseatic buildings 3054-55
Bergier, Treaty of, concessions to Hungarians, 3470
Bergson, Henri, philosophy, 5005
Bering Strait, Dejnev in, 8330
 —entry for early Americans, 2567
Berkeley, Bn. George, philosophy, 4053
 ——portrait, 4048
 ——at Rhode Island, 4018
 ——on Stoics and Platonics, 1005
Berkeley, Sir Robert, imprisonment, 3072
Berkeley, Sir William, governor of Virginia, 4023
Berlière, Dom Urszner, on monasticism, 2283
Berlin, 18th century morals in, 3908
 —modern offices, 3035
 —Napoleon in, 4101, 4190, 4191
 —plans for bombing, 4822, 4823
 —revolution (1920), 4916
 —Sieyes on mission to, 4150
 —time of Frederick II, 3968
Berlin Congress (1878), 4398
Berlin Decees, issued by Napoleon, 4101
 —Russia and Prussia agree to, 4192
Berlin, Treaty of (1878), 4398
Berlioz, romanticism, 4317
Bernonday, Tudor wedding at, 3563
Bermudas, British colony, 3547
 —yellow fever, 3119
Bernadotte, Jean Baptiste, 4102
Bernard, Lombard king, 4241
Bernard, S., of Clairvaux, Cistercian leader, 2280
 —opposition to Lethair, 2691
 —support of Innocent II, 2056
Bernard, bishop of Hildesheim, 2503
Bernard of Chartres, library, 3021
Bernard of Saxo-Weimar, 3623, 3620
 —crushed at Nördlingen, 3506, 3052
 —death, 3597, 3693
 —and League of Heilbronn, 3596, 3652
 —at Lützen, 3650-51
 —succeeds Gustavus, 3051
Bernardi, De, scapular record, 5004
Bernardino, S., on Irreverence, 3450
Berne, history, medieval, 3089-90
Bernini, Giovanni L., sculpture, 3243
Berosus, Chaldean priest, 572
Berri, Charles Ferdinand, Duc de, assassination, 4200
Berri, Jehan, Duc de, Biblio of, 3017
Berry, Duke of, pupil of Fénelon, 3345
Bertha, Queen, wife of Ethelbert, 2271
Berthari, Lombard king, reign, 2351
Berthier, Alexandre, enters Rome, 4183
Bertrand, Louis, on Louis XIV and Mnie. de Montespan, 3095
Bes, god on chair from Iuna's tomb, 702
 —sculptures of, 1029
 —on Tutankhamen's bed, 699
 —worship in Akhetaton, 752
Besanoon, fortress of, 1872
Beshobzhnik, communist paper, 4972
Besika Bay, Troy's command of, 854
Besnagar, Krishna column, Graeco-Bactrian, 1502, 1595
Besom, ancient Egyptian, 687
Bessarabia, annexed to Russia, 4554
Bessarion, Cardinal, codices, 3234
 —rejection of printing, 3188
Bessus, of Bactria, Alex. the Gr. and, 1408, 1488
 —murder of Darius III, 1408, 1487
Betalgeuze, star, measurement, 62, 64
Bethel, assigned to Abaz, 830
 —sanctuary of, 1945
Béthencourt, Jean de, exploration in Canaries, 3528, 3529
Bethlehem, church of Nativity, 1956
Bethlen Gabor, ally of Frederick of Bohemia, 3637, 3638
 —leaves Protestant Union, 3639
 —makes terms with Emperor, 3640
 —ruler of Transylvania, 3559
Beth-shan, cult objects from, 823, 833
 —mound of, 816
 —pottery from, 811, 822
Beth-shemesh, Philistine pottery, 811
 —statuette of Ashdoreth from, 823
Betting, in 18th century England, 4227
Boulwitz, Caroline von, and Schiller, 3966
Bewcastle, Anglo-Saxon cross, 2456
Beza, Theodore, and Antony, King of Navarre, 3348
Blagavod Gita, 2399, 2400
Blagvati, portrait of Humayun, 3307
Barahat (Barhat) Tope, Stupa Devata in, 361
 —stupa of Buddha, 1211
 —sculptures from, 1206-11, 1217
Bhis, an archer, 4456
Blarritz, informal conference at, 4380
Bible, block-book edition (1470), 3182
 —Armenian translation, 1062
 —Erasmus' New Testament, 3330, 3331
 —first printed, 3185
 —in Slavonic, 3025
 —ground of Reformation, 3355
 —historical value, 13
 —inspiration, S. Thomas Aquinas on, 3015
 —Jerome's translation, 2324
 —Luther's translation, 3349, 3351
 —Mazarine, or 42 Line, 3185
 —of Oliver Cromwell, 3724
 —origin of name, 2185
 —in Puritan England, 3568, 3504
 —on sovereignty, 3607
 —translated into Chinese, 4653
 —into Glagolitic and Gothic, 1065
 —into Slavonic, 1062, 3031
 —into French, 3681
 —value in education, 10
 —Wycliffe's translation, 3074, 3075
Bible-moths, nickname of Wesley's, 4205
Biblia Pauperum, block book, 3182
Bleocca, battle of, arquebusers at, 2053
Biddle, Commodore, in Japan, 4411
Bidford-on-Avon, Anglo-Saxon relics, 2458
 —early English armour, 2449
Bibury Camp, Roman capture, 1781
 —'Big Four,' at Versailles, 4877
Bijapur, attacked by Aurangzib, 3778
Biometallism, in France, 4138
 —in Japan, 4417
Binary Systems, of stars, origin, 71
Bindusara, extent of empire, 1587
 —successor of Chandragupta, 1415
Biography, Trevelyan on, 19
Biology, ancient Greek, 2070
 —Galen's influence, 2070
 —a 19th century science, 4527
Birds, eaten in Babylonia, 672
 —Egyptian symbol of soul, 355, 363
 —the first, 109, 131
 —netting, predynastic Egypt, 484
 —not domesticated, ancient Egypt, 486
Birde, The, Aristophanes, 1350-7
Birdwood, General, at Lille, 4733
Birkella, oldest vertebrates, 111, 112
Birmingham, Ala, iron industry, 4467
Birrens, Dumfries, Roman fort, 2142
Birth Control, 17th cent. France, 3992
Birth Rate, pre-war decrease, 4654
 —world statistics, 304
Bisharin, moderate long-head, 229

Bishops, Anglican, in America, 4026
 —costume, medieval, 2129
 —in early Church, 2319, 2321
 —medieval functions, 2420, 2753, 2757, 3422
 —pastoral staff, 11th century, 2686
 —Puritan hatred of, 3717
Bismarck, Otto von, and Austrian friendship, 4396
 —dropped by William II, 1562
 —on Europe in the 'eighties, 113
 —and German nationalism, 3614
 —portrait, 4382
 —president of Berlin Congress, 4398
 —rise to power, 1379
 —satire on, 1374
Bismarck Archipelago, annexed by Germany, 1636
Bison, in Britain, 136
 —cave-drawings, Niaux, 199, 253
 —clay model, The d'Andouville, 252
 —drawing of dead, wild writings, 260
 —hunted in New World, 340
 —prehistoric paintings, 255, 259, plates, 261-64
Bistici, Vespasiano, de, 3218
Bithynia, Roman province, 1770-7
 —first governor of, 2183
Bithynians, and Seventh Troy, 800
 —from Thrace, 801
Biton, statue at Delphi, 1327
Blarni, Viking, slights America, 2527
Born Ironside, 2522-23
Blackbeard: see *Teach*, Edward
Black Death, 3105-10
 —changes after, 3100, 3131, 3133
 —economic results, 3108, 3109, 3131
 —effect on peasants, 2296, 3132
 —end of Middle Ages in W. Europe, 3120, 3431
 —first appearance in Europe, 2015
Blackfriars Bridge (1810), plate f.p. 1270
Black Hole of Calcutta, 3399
Black, Joseph, 3831
Blackpool Bridge, Roman road at, 2036
Black Sea, barbarian area in time of Troy, 855
 —only trade, 1544
 —Greeks, early visit to, 1540
Black Sea Treaty (1850), 4387
Blackstone, William, on imperial title, 398
 —on legal status of women, 382
Blackstone Edge, Roman road, 2035
Bladud, king, Bath founded by, 2151
Blaw, Willem J., printer, 3200
Blair, Robert, poems in Germany, 3950
Blake, Robert, and British sea power, 3551
 —expedition against Tunis, 3806
 —portrait, 3806
Blake, William, *Illustrations to Night Thoughts*, 4307
 —The Tyger, 5025
Blanc, Louis, French socialist, 4440, 4983
Blanche of Castile, French queen, 2826
Blanco, Cape, 1173
Blanco, Guzman, Venezuelan, 4334
Blanc-Alison Bill, 1512
Bleeding, medieval use, 3454
 —in monastic system, 3421
Blenheim, battle of, 3753, 3759
Blest Islands of, medieval belief, 304
Blimp, Admiralty airship, 4787
Blinding, in Byzantium, 2633
Blindman's Buff, in 18th century Germany, 3951
Bloch, M., war predictions, 4707, 4800
Blockade, British, effect on revolutionary France, 4139
 —of Germany, 4754, 4800, 4834, 4835
 —continues until 1919, 4907
Block books, 3181, 3182
Bloomfontein, captured by British, 4571
Bloomfontein, Convention of, 4019
Blots, Château de, Renaissance architecture, 3250, 3252
Blondel, search for Richard I, 2904
Blood, Galen's theory of circulation, 2078
 —Harvey's discovery of circulation, 3826, 5041
 —human and anthropoid reactions, 133
 —substance of life, 350

Blood feud, Beduin, 2376
Bloods, 18th century society, 4212
Bloody Sunday, in Russia, 4911
Bloomshury Square, in 1789, plate f.p. 4219
Blowpipe, primitive weapon, 281, 282
Blucher, Gebhard Leberecht von, 4108
Blue Beard: see *Gilles de Rais*
Blue and Green factions, time of Justinian, 3296
Blue-stocking, origin of name, 4216
Boabith, king of Granada, kingdom signed away to Christians, 2829
 —sword, 3247
Bondica, Queen, 1857, 1870, 2131
 —as warrior, 373
Boar, coming, Thyrus fresco, 786
 —hunting, cave painting, plate, 202
 —Calydonian boar, 985
 —Chomars II, 2406
 —Romans II, 2421
 —painting of, Akmanha, plate, 262
 —ask for helmet, 738
Boat racing, in ancient Greece, 1323
Boals, Aegon, early, 467
 —of Amen-Ita, 643
 —Bronze Age, 635
 —building, ancient Egypt, 501
 —Egyptian XII Dynasty, 465
 —evolution, 291
 —model of Nilo, 560
 —Neolithic, 291
 —papyrus for making, 565
 —Swahili, 511
 —See also *Ships*
Boaz, pillar of Temple, reconstruc., 819
Bobbie, monastery, 2086
Boccaccio, Giovanni, Dreamer, account of Black Death, 3106
 —friendship with Petrarch, 3221
 —portrait, 3224
Bocheris, king of Egypt, 836
 —name and titles on vase, 1158
Bocchus, king of Mauretania, coin, 1771
 —support of Jugurtha, 1760
Bode, J. E., and education, 3950
Bodhidharma, Buddhist philosopher moves sent to Canton, 2160, 2166
 —teaching of (Zen), 2551
Bodhisattva, figure of a, 1497
 —head of Chinese, 1503
 —in story of Barlham, 1506
Bodian Castle, 3124
Bodin, Jean, his Republic, 3990
Bodkins, Solitenn, 247
Bodoni, Giambattista, printer, 3196
Boesti, people, settlement, 988
Boetia, Athenian attempt to master, 1242
 —control, 1235
 —beehive tombs in, 785
 —early language, 980
 —founding, 988
 —goddess of, 992
 —philosophy, ancient, 1182
 —revolt from Athens, 1236
 —the state, 1190, 1255
 —statuettes and potsherd from, 992
Boetium League, 1094, 1405
Boers, Dutch in S. Africa, 4615, 4619
Boer War: see *S. African War*
Boethius, of Chalcodon, bronze by, 1075
Bogaz Keui, 710, 720, 1001
 —centum languages on tablets, 807
 —end of records at, 790
 —formerly Hattusas, 593, 717, 719
 —Ilitite archives at, 420
 —interpretation of tablets, 593, 722
 —library of tablets, 592, 721
 —rock carving, 717, 721-22, 728
 —texts, mention of Taroisa, 861
 —Whicklor's excavations, 591
Bogotá, European culture, 4335
Bohemia, Czech and Teuton strife, 3077
 —female warriors in, 373
 —fight for liberty, 4368
 —invaded by Frederick the Gr., 3893
 —Protestantism in, 3588
 —persecution, 3626-27
 —Roman leaders, 1987
 —round-barrow race in, 633
 —succession, medieval, 3004
 —Thirty Years' War, 3630-39
 —Wycliffe in, 3076

Bohemund I, prince of Antioch, 2654
 —Antioch taken by, 2653, 2794
 —in Crusades, 2616, 2952
 —in Macedonia, 2051
Bohne, Jakob, mystic, 3622
 —influence on Spencer, 3916
Bohuslan, Sweden, rock carvings, 635, 917, 2518
Boiardo, Matteo M., 3220
Boil, tribe, and Rome, 1420, 1606, 1609
Boileau-Despreaux, Nicolas, and the age of reason, 4304
 —critic and court historian, 3890-91
 —and French classicism, 4041
 —Girardon's bust, 4043
 —on Matherne, 4040
Bois-Reymond, Du, physiologist, 4531
Bojador, Cape, rounded by Gil Eannes, 1520
 'Boke of Husbandry', vignette, 2669
Bokenham: see *Bowcheris*
Bokhara, early history, 2770, 2780
 —medieval importance, 2911
 —siege, 2350
Bolan Pass, as Aryan route, 451
 —British troops in, 1159
Bolas, hunting weapon, 283
Boleslav, founder of Poland, 2510
Bollivar, Simon, 4276, 4324, 4325
 —defeated by Morillo, 4277
Bolivia, 4332
 —Chilo, war with, 4331
 —early civilization, 2594, 2592
Bologna, ceded to France, 4093
 —15th cent. view, 3211
 —and League of Nations, 4929
 —medical schools, 2512
 —Neptune fountain, 2763
 —origin, 1711
 —palace of a palace, 2763
 —republic, 2762
 —Roman law, 2158
 —Torre Asinelli, 2702, 3211
 —Torre Garisenda, 3211
 —Villanova settlement, 1153
Bologna, Francis of, Italian type, 3180
Boishevism, 396, 4030-76
 —conference of Genoa, 4888
 —in Hungary, 4883
Bomba: see Ferdinand of the Sicilies
Bonaparte, David, Napoleon's father, 4170, 4180
Bonaparte, Jerome, at Hongoumont, 4199
 —king of Westphalia, 412, 4192
 —portrait, 4191
Bonaparte, Joseph, ambassador to Valenno, 4183
 —flies from Madrid, 4192
 —king of Naples, 4191
 —of Spain, 412, 4089, 4192
 —portrait, 4192
 —talents, 4170
Bonaparte, Louis, deposed, 4105
 —king of the Netherlands, 412, 4101
Bonaparte, Louis N.: see *Napoleon III*
Bonaparte, Lucien, his first wife, 1150
Bonaparte, Napoleon: see *Napoleon I*
Bonaparte, Pauline, by Canova, as Venus, 4036
Bonapartism, end, 1656
Bone, Aurlingnaen period, use, 243
 —clut, Pildown, 245
 —in Mesopotamia, 513
 —Neanderthal man's use, 247
Bonifacio, S., burial place, 2441
 —and Charles Martel, 2359, 2115
 —at Jarrov, 2360
 —martyrdom, 2416
 —missionary work, 2486
Boniface VIII, pope, 2832, 3061
 —at conclave of cardinals, 3066
 —conflicts with England and France, 2832, 2840, 3063
 —fresco by Giotto, 2815
 —issue of Christs Lances, 2832, 2833
 —papal supremacy claimed, 2845, 3023, 3033
Boniface IX, pope, statue, 408
Boniface, count of Africa, 2201-05
Book of Degrees, Russian, 3926
Book of Kells: see *Kells*
Book of the Prefect, Byzantine customs in, 2029, 2030

- Books, early materials, 2165
—manner of multiplying early, 3020
—medieval scarcity, 3020
—16th cent. making, 3196
—*See also* Printing
- Booksellers, St. Paul's Churchyard, 3357
- Boomerang, 210, 277, 278
—for fowling, Egypt, 484, 518
- Booth, William, founded Salvation Army, 4109
- Borovicium, Hadrian's Wall, 1722
- Bordeaux, Roman altar, 2164
—revolts (1604 and 1674), 3855
- Borden, Sir Robert L., Canadian premier, 4914
- Borgia, Cesare, 3234, 3299, 3805
—*da Vinci* serves, 3231
Borgia Family, nationality, 3209
Borgia, Francis, becomes Jesuit, 3686
Borgia, Lucrezia, fame as poisoner, 3299
—portrait, 387
- Borgia, Rodrigo: *see* Alexander VI
- Borgognone, Ambrogio, painting of S. Roch, 4105
- Boris II, Bulgarian emperor, 2478
- Boris Godunov, 3586, 3926
——built campanile, Moscow, 3922-3
——citadel, Smolensk, 3934
Borneo, blowpipe making, 251
—coivles as ornament, 361
—James Brooke in, 4626, 4627
—Kayuan long house, 232
—superstitions in, 349-51
- Boro Budur, Java, sculptures, 2404-5
- Borodino, battle of, 4105, 4105
- Borrow, George, 14, 4551
——revived interest in, 5018
- Borsippa, El-Zada on site, 569
—seal of Nabu, 583
- Bosnia, and Austria, 4555, 4578
—Bights Turks, 3121
- Bosc, king of Provence, 2498
- Bosporus, early dug-outs on, 2477
—geological origin, 853
—a prehistoric Niagara, 406
—sea wall of Constantinople, 2292
- Bosporus, Kingdom of, coins, 1067
—relations with Athens, 1544
—Roman influence, 1994
- Boss, rise of, U.S.A., 4508
- Bosquet, J. B., 3837, 3900, 3861
——and Mme. de Montespan, 3095
——and quietism, 3808
——on revocation of Edict of Nantes, 3871
- Boston, Mass., Faneuil Hall, 4030
—foundation, 4007
—Franklin born in, 4018
—harbour, 4029
—Old State House, 4023
—Paul Revere's house, 4023
—War of Independence, 3007, 4029-30
- Boston Tea Party, 4029
- Bostra, Roman colony, 2057-58
- Boswell, James, Life of Johnson, 4211
——at Reynolds' party, 4210
——true historian, 8
- Botany, in Assyria, 972
—in early Greece, 2070-78
—nomenclature, 2070-77
—in 16th cent., 3341
—*See also* Materia Medica; Plants
- Botany Bay, convict settlement, 411
——in 1788, 4598
- Botha, Hans, Boer leader, 4623
- Botha, Louis, premier of S. Africa, 4623
——at Imperial Conference, 4625
——quells rebellion (1914), 4763
- Bothmer, General, commands Austrians, 4765
- Bothwell, F. Stewart, E. of, in witch trial, 3259
- Botticelli, Sandro, 3326
——Adoration of the Magi, 3139
——Birth of Venus, 3318
——Coming of Spring, 3318
——Savonarola's influence, 3248
——self-portrait, 3331
- Boucher: *see* Axo
- Bouche, François, portrait of Mme de Pompadour, plate f.p. 3983
- Boucher de Perthes, Jacques, archaeologist, 146
- Boud, Persian family, power, 2511
- Boulton, meaning of title, 1878
- Bouleuterion, senate house, Roman Troy, 862, 869
- Boulogne, arrival of Sir J. French, 4743
—Napoleon's forces at, 4178
—revolt (1022), 3855
—Roman lighthouse, 2050
- Boulton, Matthew, Watt's partner, 4352
- Boundaries, Roman rites, 1741
- Boundary Stone, of Akimaton, 746
—Babylonian, 976
- Bourbon, D. of, minister to Louis XV, 3833
—*See also* Antony of Bourbon
- Bourbon Dynasty, France, restoration, 4259
—*See also* Louis XIII-XVI; Louis XVIII; Louis Philippe, etc.
- Bourbon Dynasty, Sicily, restoration, 4250
- Bourbon Dynasty, Spain: *see* Philip of Anjou
- Bourdau, Louis, eloquence, 3860
- Bourdonnais, La, French admiral, 3596
- Bourgeois, Léon, and League of Nations, 4917, 4920, 4931
——portrait, 4919
- Bourgeoisie, class of Third Estate, 4111
—predominant in France, 4153
- Bourges, Hôtel de Ville, 3437
—Roman siege, 1731
- Bourg-Molay, Jacques de, burned 3060
- Bourgmouth, fossil palm from, 109
- Bouvins, battle of, 2747
- Bow, Andamane, 250, 251
—Aztec use, 3362
—of Bushmen, 280
——musical instrument, 296
—in Capsian paintings, 201, 202, 251
—composite, 279
—Egyptian, 483, 501
—in Heroic Age, 840
—invention, 279
—Irish, 3043
—Palaeolithic paintings, 201, 202, 378
—prehistoric, 45, 201, 251, 278, 279
—Russian, 3923
- Bowes, Jerome, in Moscow, 3923
- Bow Street, London, in 1777, 4215
- Bow Street Runners, institution, 4215
- Boxer Rising, in North China, 4566
——Shantung, 4661, 4662, 4663
- Boxing, anc. Greece, 1310, 1322, 1325
—in 18th century England, 4227
—Greek prize-fighter, 1323
—Minoan Boxer Vase, 769
- Boyle, Robert, and atomic theory, 3831
- Boynes, battle of the, 3747
- Brabant, commerce, 2898
- Brabant, Siger de, condemned, 3016
- Braccolini, Poggio, classical studies, 3321, 3322
- Bracelet, of Egyptian queen, 489, 554
—Etruscan, 1163
—flint, evolution of, 273
—Gaulish, 1517
—Hallstatt period, 939
—Hittite, 919
—Persian, 1131
—Trojan, 860
- Brachyopod, Cambrian Period, 94
- Brachycephalic: *see* Broad-heads
- Bradfield College, Greek theatre, 1665
- Bradford, William, Pilgrim Father, 4000
- Bradford-on-Avon, Saxon church, 3409
- Braddock, General, blunders, 4025
—defeated by French, 3807
- Bragadin, Marcantonio, 3647
- Brake, Tycho, astronomer, 3340, 3341, 3825
- Brahma, the Creator, holy city of, 2304
- Brahmagupta, astronomer, 2400
- Brahmana, ritual elaboration, 1200
- Brahmanism, 2399-2400
—Buddhism influenced by, 2303, 2397
—caste system, 2393-4, 2396-7
—doctrines, 1206, 1209
—mantras in, 2304
- Brahmans, 237, 453, 2394
—France Xavier on, 3092
—occupations for, 2405
- Brahms, Johannes, portrait, 4316
- Brain, anthropoid and human, 156, 168, 182
—Erasistratus on, 2065
—Hippocrates' theory, 2004-5
- Brasin—*cont.*
—Pithecanthropus, 155-56, 158
—structure and functions, 307
- Bramah, Joseph, locks and presses, 4358
- Brandenburg, 2493, 3587, 3890
—under Great Elector, 3691, 3750
- Brandenburg, Albert of, scholarship, 3332, 3335
- Brandenburg Gate, Berlin, 1190
- Brandon, flint-working at, 274, 275, 281
- Bramling, Karl, Swedish socialist, 4992
- Brasidas, Spartan leader, 1242
- Brasol, Bors, on professional criminals, 5078
- Brassmipou, figurine from, 253
- Brasses, Monumental, 2928, 2929, 2932
- Brazil, 4329-31, 4575
—African strain in, 4321
—Argentina, war with, 4325
—discovery, 3205, 3535
—early man in, 215
—empire, 4276, 4322
—Germany, war with, 4339
—guassian on borders, 341
—Monroe doctrine, 413
—Portuguese ascendancy, 4261
—colonisation, 3339
—primeval rocks, 84
- Bread, in Babylon, 572
—distribution in France, 3856
—in Egypt, ancient, 458, 552, 560
—queue, Petrograd, 4968
—tickets in Rome, 2229
- Breakpear, Nicholas: *see* Adrian IV
- Breastplates of S. Patrick, a rune, 1520
- Breda, captured by Spinola, 3638
- Breitenfeld, battle of, 3506, 3637, 3644
—Gustavus Adolphus at, 3647
- Breitenfeld, 2nd battle of, 3053
- Bremen, trade during Thirty Years' War, 3635
- Brendan, or Brandon, S., Is. of the Blessed, 364
- Brannus, Gaulish leader, 1625-20
- Brescia, seized by Napoleon, 4093
- Breslau, Treaty of, 3893
- Brest-Litovsk, fall, 4761
—peace discussions at, 4054, 4056
- Brest-Litovsk, Treaty of, 4777
- Brethren of the Coast, buccaners, 3800
- Brethren of the Free Spirit, sect, 2002
- Breigny, Treaty of, 2009
- Bretan, Le, censorship of Encyclopédie, 4121
- Breton Language, origin, 1509
- Brenil, Abbé, French savant, 149
—on Neanderthal race, 194
- Brewing, in ancient Egypt, 355, 552
—in Tudor times, 3441
- Brialmont, fortified Liège, 4715
- Brian Boru, at battle of Clontarf, 2328
- Bribery in elections, 4429
- Bricks, in Rom. building, 2030, 2031-2
—for Sumerian buildings, 510, 527
- Brickin, Feast of, Irish romance, 1511
- Bridal customs, Athenian bride, 1265
- Bridge, Caesar's military, 2039
—Manchu, marble, 4657
—Roman, 2036-41, 2045, 2237
- Bridget, S., of Sweden, 3068
- Bridgewater, 3rd Duke of, canal, 4345
——and steam boat, 4353
- Brienne, Napoleon at school, 4179
- Brienne, Léménie de, minister of Louis XVI, 3916
- Brigandage, in Thirty Years' War, 3644, 3645
- Brigantine, armour, 2940, 2911
- Brigantes, Caractacus captured, 1854
- Brigden, J. E., on Australian Socialism, 4993
- Bright, Jehn, and Anti-Corn Law League, 4434
——and Factory Acts, 4534
——portrait, 4476
- Brille, capture by Sea Beggars, 3408
- Briabans, capital of Queensland, 4609
- Briseis, and Achilles, 850
—vase painting, 843
- Brissot, Jean P., leader of Girondins, 4163, 4170
——on Robespierre, 4177
- Brissotina: *see* Girondins
- Bristol, coalfield structure, 106
—Methodists in, 4206

Britain

Britain, Angles in, 310, 2271
 —Britons in, 17, 2271
 —Bronze Age, 32, 1515
 —Carboniferous times, 103, 104
 —Celts in, 310, 1507-9, 1512-11, 1521, 2271
 —Christianity in, 2245, 2271
 —coinage, 1525
 —Dark Ages, 2145
 —first Christian church, 2187
 —Galen's writings in, 5040
 —horses, 1511
 —kingdoms, 2271
 —Permian times, 105
 —post-Pliocene times, 135-6
 —Ptolemy's map, 2076, 2077
 —Roman: *see below*
 —salt beds deposited, 103
 —sea reclaims desert, 103
 —Triassic Period, 103
See further England; Great Britain
Britain, Roman, 2137-56
 —Agricola in, 1900
 —annexation of, 2109
 —aqueducts, 2049
 —Barbarian invasions, 2155
 —bridges, 2040, 2041
 —Caesar's invasion, 1783
 —Claudius in, 1854, 1875, 1085
 —Constantine III proclaimed, 2201
 —Constantine in, 2125
 —coun for Rome, 1901
 —evacuation, 2302, 2145
 —figure in Rome, 1992
 —fortresses and forts, 1970, 2139, 2140-1
 —government, 1970
 —Indian's expedition, 1970
 —map, 2139
 —Maximus proclaimed, 2109
 —merchant monopoly of, 2151
 —mines, 1901, 2153
 —New and, 1857
 —religious, 2143, 2147
 —roads, 2034, 2040, map, 2139
 —Severus in, 1970
 —villas, 1994, 1997, 2152-53
See also Hadrian's Wall, etc.
Britannicus, s. of Claudius, 1855-56
British: *see under specific names, e.g.*
 Africa, British West; Ghana; India, etc.
British Columbia, joins Dominion, 4007
British East Africa Co. founded, 4034
British Empire, 1400, 4590-1644
 —constitution 318-19, 418-14
 —Dominion status, 4809
 —expansion, 411, 413
 —rise of, plate f.p. 402
British Isles, nationalities, 308
 —races and languages, map, 302, 309
British Museum, compared with Paris, 1553
British North America Act, 4393, 4007
British North Borneo Co., 4027
British S. Africa Co. founded, 4633
 —Pioneer force, 3403
Britons: *see Britain*
Brittany, annexed by France, 3144
 —conquest by William I, 2610
 —an English possession, 3010
 —uncertain monuments, 621, 622-3
 —revolts in, 3855, 4115
Brixham, William I's lands at, 3747
Broad-heads, 227-28, 228, 229
 —compared with Long-heads, 195
Brocken, Walpurgis Night on, 3202
Brighter, Celtic discovery at, 1520
Broken Hill, early man at, 160, 169
Brontë, Charlotte, 4545
 —and social reform, 4405
Brontosaurus, habits, 120
 —skeleton and reconstruction, 121
Bronze, beginnings of, 288, 634
 —Chimico, early, 446-47
 —for Egyptian weapons, 561, 682
 —in Greek Heroic Age, 845-46
 —Ming dynasty, 3521, 3523
 —Mycenaean graves, 780
 —mould for casting, Troy, 801
 —for weapons, 285
Bronze Age, in Balkans, 1031
 —barrows, 633, 634, 636
 —in Crete, 695

Bronze Age—cont.
 —in England, 32, 1515
 —Europe, 617, map, 619, 997-925, 936, 2216
 —Europeans of Middle, plate, 925
 —in Greece, 611, 808, 993
 —and Hittites, 716
 —Iron Age's effect on, 1520
 —in Italy, 613
 —in Mycenae, 778
 —in Spain, 614
 —swords, 1032
 —in Troy, 856
 —writing in, 804
Brooch, Anglo-Saxon, 2118, plate f.p. 2154
 —Celtic, 1617, 1518
 —Jensen, 1163, 1599
 —Greek, Italian, 987
 —Iberian, 811, 815
 —Hallstatt, Iron Age, 939
 —La Tène Period, 1617, 1518
 —Scandinavian, 2322
 —Tentative, 2220, 2222
 —Villanovan, 1162
Brooke, Lord, and colonisation of W. Indies, 3510
Brooke, James, rajah of Sarawak, 4626, 4627
Brook, Rupert, poetry, 5019
Brothers Minor, of St. Francis, 2234
Brothers of the Cross: *see Flagellants*
Brown Bess, 2953-4
Brown College, foundation, 4017
Brown, Lancelot ('Capability'), 4301
 —influence in Germany, 3052
Browning, E. B., humankind, 4405
Browning, Robert, 4538
Brow Ridge, in Alutsk, 2370, 2381
 —modern and prehistoric, 209
Brue, family, 2015
Bruegel, Pieter, the Alchemist, 352
 —Dancing Master, 3112
Bruges, 2006-08, 3031
 —Belfry, 2606, 2907
 —fair, 2001
 —Gothic House, 2005, 2907
 —Jalles, 2907
 —Hansville League, 3050
 —Porto d'Ostende, 2907
 —Tentative or Customs House, 2905
 —Town Hall, 2804, 2809
Brunn, Rudolf, in Zurich, 3080
Brundisium, pact of, 1702
 —Roman post, 1610
Brunhild, wife of Sigfrid, 2268-69
 —and S. Columban, 2080
Bruno, S., abbot of Humber, 3418
Bruno, c. of Otto III: *see Gregory V*
Bruno of Egghelheim: *see Leo IX*
Bruno, Giordano, astronomer, 40, 3233
Brunswick, 2800
 —Alto Wage or Staple house, 2899
Bruswick, Frederick W. Duke of, threat to Paris, 4087
Brush, for Chinese writing, 1071
Brussels, Annual conference (1020), 4925
 —Town Hall, 2895, 2896
Brussels Armistice Commission, and German shipping, 3011
Brussier, Gen., with Nicholas II, 4773
Brutian League, formation, 1416
Brutius, Hannibal at, 1003
Brutus, Decimus, naval victories, 1732
 —in Gaul, 1789
Brutus, Lucius Junius, on coin, 1645, 1707
Brutus, Marcus Junius, 1790, 1791
Bryan, William J., Democrat leader, 4713, 1718
 —pacifism, 4732
 —resignation, 4733
 —secretary of state, 4723
 —and Wilson's election, 4720
Bryant, W. C., and American literature, 4313
 —and Civil Service reform, 4510
Byre, Lord, on British and Roman Empires, 405, 411
 —on Charlemagne's coronation, 408
 —on war, 4785
Brythonic Language, 1507
Bubastis, Egypt, 882
Bubastite Dynasty, founding, 882

Buffalo area

Bubonic Plague: *see Plague*
Bucarelli, viceroys of Buenos Aires, 3688
Bucaneros, 3800-17
Bucephalus, city, 1420
Bucephalus, horse, 1441
 —death, 1420, 1445
 —training, 1425
Bucharest: *see Bukarest*
Buckell, Captain, murderer, 3813
Buckingham, Geo. Villiers, 1st D. of, on
 —Don't-hold's portrait, 3711
 —impeached, 3671
 —at La Rochelle, 3593
 —murdered, 3672
Buckle, H. T., 4533
 —on climatic influences, 387
 —portrait, 11
Buckle, Anglo-Saxon, 2118, plate f.p. 2151
 —Strythian clasps, plate 927
 —Pentonic, 1280, 2222
Bugany, in Third Yans' War, 3636
Buda, palace, 3160, 3160
Budag Beg, Persian envoy to Aurang-
 —zib, 3777
Buddha, 1200, 1215
 —sins and teaching, 2307-08
 —in Alexandria, 1901
 —Villanovan, 1201
 —figure, 1196, 1501
 —footprints, 1200, 1210
 —galaxy story, 1213
 —hand, 2409
 —Hinduism, 2303
 —holy tree, 1201, 1207
 —Kushika's religion, 1199
 —Kushika's rusto, 2307-08
 —mother, 1212
 —pillar, 1209
 —preaching to Nagas, 1205
 —rules, 2308
 —search for, 2556
 —statues, 1197, 1408
 —in story of Buddhism, 1506
 —statue, 1212, 1500
 —as Supreme Being, 2397
 —symbolic representations, 1208, 1195-
 —00
 —teaching, 1503
 —on World Lotus, 2307
Buddh-gaya, Buddhist temple, 1201
Buddhism, 1204-10, 2308-2400
 —Asoka's influence, 1215, 1580
 —buddha, 1502
 —Brahmanism influence, 2303, 2307
 —caste, 2307
 —in China, 1106-7, 2507
 —introduction, 1501, 2103
 —persecution, 3509
 —spread, 2100, 2551
 —Chaplin and, 2101
 —in India, 2303, 2400-01
 —and Jainism, 1209
 —in Japan, 2391
 —language used, 2309
 —monasteries, 2286
 —monasticism, 1200, 1211, 2401
 —printing, use of, 2557, 2560
 —religion, 2308
 —the sangha, 2303, 2307
 —stupa, type, or shrine, 1211, 1215
 —woman, status of, 378
Buddhist Architecture, Graeco-Buddhist
 1500
 —India, 1207-8, 1212-11, 1218-19
 2399, 2401
Buddhist Art, at Boro Budur, 2401 01
 —China, 2519-52
 —Graeco-Buddhist, 1496-1501
 —India, 1205-17, 1190-1501, 2395
Budkevitch, Archdeacon, trial and
 death, 4972
Budrum, nuc. Hellenic, 1180
Buñil, Jean de, author of La Jouvencee,
 2885
Buenos Aires, British attempts on,
 4322
 —dock, 4327
 —as federal district, 4324
 —Plaza Congreso, 4329
 —revolution in, 4323
 —Rosas rules, 4320
Buffalo area, Amorica, in prehistoric
 times, 2506, 2560

Buffier, Father, philosophy, 4050
 Buffon, Comte de, 3829, 3830
 —Natural History, 4067
 Builders, Grand National Guild of, 4071
 Bukarest, full of (1910), 4766
 —Treaty of (1913) 4583
 Bukharin, removed from office, 4070
 Bukovina, Austrians expelled from, 4705
 Bulawayo, occupied by British, 4633
 Bulgaria, 413, 2353, 2409
 —anti-urban campaign, 5072
 —and Balkan Wars, 1582-83
 —Byzantine influence, 2639
 —empire, 2178-9, 2512
 —enters Great War, 4761
 —first king, 4555
 —and League of Nations, 4020
 —literature, 2038
 —and Russia, 2478, 2512, 4554
 —signs armistice (1918), 4784
 —and Treaty of Neuilly, 4577
 Bulgarians, cavalry action, 2478
 —Orthodox faith adopted, 2637
 —racial origin, 2406, 2478-79
 Bull, in Babylonia, 642, 966
 —in Cretes, 6, 769
 —black head, Abydos, 492
 —bull jumping over, 9
 —in Cretes, 1365
 —Hittite, 724
 —Isacelle emblem, 821
 —from Mycenae, 730, 783
 —on Mycenaean cup, plate, 156
 —Neolithic carving, Malta, 270
 —prehistoric paintings, 239
 —sculpt from Harappa, 450
 —statue, from Tell-el-Obeld, 523
 —Sumerian of Aton, 422
 —symbol of Aton, 745
 —from Ur, 517, 524
 Bull-baiting, in 1820, 1103
 Bullecourt, tanks at, 4819
 Bull-fight, in Cretes, 600
 —Minoan, possible origin, 708
 Bull-leaping, on boxer vase, 769
 —in Cretes, 6, 769
 Bull-roarer, 251, 299
 Bull Run, battle of, 4391, 4392
 Bunker Hill, site, 4029
 Bunyan, John, 3714
 —on his sins, 3725
 Bunyoro, native rulers, 4635
 Buonafantini, B. de', murder, 2763
 Buranda, besieged, 735
 Burbank, Luther, and spineless cactus, 5084
 Burdett, Sir Francis, portrait, 4232
 —protected by mob, 4282
 Burdett-Goutts, Baroness, philanthropy, 4409
 Bureaucracy, in ancient Egypt, 499
 Burger, Gottfried August, German poet, 3950, 4310
 Burghley, W., Lord, portrait, 3554
 Burghmair, Hans, woodcut, 3935
 Burgundians, 2201, 2201-05
 —dress of, 3439
 —location of, 2214
 Burgundy, 2247, 2249
 —becomes a duchy, 3002
 —under Charles V., 3309
 —and France, 3002, 3010
 —Upper, early Kingdom, 2195
 Burgundy, D. of, Foulon's pupil, 3845
 —with Louis XIV., 3857
 Burial Customs, Anglo-Saxon, 2118, 2458
 —in Aurignacian period, 192
 —Aztec, 3365
 —Babylonian, 534, 587
 —Bantu, 236
 —Cretan, 1028-29
 —Celtic, early, 913
 —La Tene, 1518-19, 1521
 —chariot burials, 1519
 —Chinese, plate f.p. 2552, 2555, 2857
 —models buried, 2098, 2105, 2558
 —Egyptian, 461, 489, 490-91, 557
 —Etruscan, 1155-62, 1165-73
 —Germanic peoples, 2217, 2221
 —Graeco, ancient, 995-6, 1280
 —sopulchral vases, 996, 997-8
 —Grotto des Enfants, 217, 366
 —hut urns, 1500
 —Illyrian, 913-17, 910

Burial Customs—cont.
 —medieval, 3071
 —in Megalithic zone, 289
 —Minoan, 768
 —Mongolian, 2850
 —Mousterian period, 192, 289
 —Mycenaean, 779
 —Neolithic period, 618
 —in Italy, 612
 —Palaeolithic, 216, 360
 —pottery, plate f.p. 2552
 —Roman, 996, 1650, 1740, 1741
 —Scythian, 930, 931, 940
 —shaft tombs, 778, 1595
 —ship burial, 940, 2516-9
 —Silbury Hill, 636
 —Stone and Bronze Age, Europe, 619
 —Sumerian, 514, 533, 534
 —at Ur, 514, 533, 534
 —urn-burial, 915-17
 —Viking or Scandinavians, 2516-9
 —Villanovan, 1152-53
 See also Cremation
 Burke, Edmund, and the American colonies, 3907
 —attack on Hastings, 3906
 —on the French Revolution, 4084
 —as orator, 4212
 —on Parliament, 399
 —and parliamentary reform, 4431
 —portrait, 3907, 4431
 —at Reynolds's party, 4210
 —on the State, 3953
 Burke Act and Red Indians, 4509
 Burma, annexed by Britain, 4470
 —monasteries, 2280
 Burmese, racial differentiation, 398
 —ritual tug-of-war, 363
 —war with Britain, 4450, 4460, 4470
 Burnell, Robert, minor house, 3229
 Buraet, Gilbert, on Charles II and Lady Castlemaine, 4901
 —on Cromwell, 3724, 3732
 —portrait, 10
 Burney, Charles, 2937, 4447
 —house, 4249
 —at Reynolds's party, 4210
 Burney, Fanny, 4211, 4217
 —on education, 4245
 Burning Glasses, ancient, 2072
 Burns, John, on unskilled labour, 1670
 Burra-Burrah, king of Babylon, 906
 Burrhus, adviser of Nero, 1856, 1896
 Burrough, Stephen, search for N.E. passage, 3570
 Bur-Sin, king of Isin, 432
 —temple at Ur, 531
 Burt, Thomas, first labour M.P., 4678
 Bury St. Edmunds, peasants' revolt at, 3192
 —riots, 1428
 Bushmen, arrows, 208, 280, 282
 —artistic capacity, 203, 250, 293-94
 —bow-harp, 296, 296
 —bull-romer, 299
 —cave paintings, plates, 203-4
 —characteristics, 198, 208, 229
 —digging stick, 284, 285
 —modern types, 208
 Busirite, slaying by Heracles, 1015
 Bust, origin in art, 1197, 1170
 Butcher, S. H., portrait, 1566
 Butcher, in Babylonia, 582
 —Egyptian, 556
 —Roman monument, 1822, 1825
 —shop in Rome, 1824
 Butler, Joseph, Analogy of Religion, 4055
 —on decay of religion, 4203
 —portrait, 4054
 Butler, Peter, letters of reprisal, 3811
 Butler, Samuel, 5913, 5911
 —translates Homer, 1338
 Buto, goddess, 1097
 Butterfly, on Minoan pottery, 600
 Button, Jemmy, native of Tien del Pucgo, 312
 Butress, Gothic, 2805, 2877, 2880
 Buwayhids, family, 2782
 Byblus, 1160, 1177
 —ecstatic prophets, 823
 —Egyptian influence, 1012
 —Philitine king of, 707
 —sarcophagus of Ahiram, 899
 —trado with, 407, 661

Byag, Admiral, commanded at battle off Cape Passaro, 3881
 —satire on, 3898
 —shot, 3599
 Byra, Mongol leader, 2850
 Byrd Family, in colonial America, 4012
 —library, 1017
 Byron, Lord, and blue-stockings, 4216
 —Child Harold and Don Juan, 4311
 —d'Orsay's drawing, 1311
 —on George III, 4221
 —in Greek uniform, 1262
 —and religion, 4250
 Bytown : see Ottawa
 Byzantine Architecture, 2640-41
 —dome, 2635, 2640
 —London examples, 2641
 —pendentive, 2635, 2640
 —S. Sofia, 2300, 2631, 2635
 —Westminster Cathedral, 2637
 Byzantine Art, 1030,
 —carving, 2639
 —chalice in S. Mark's, 2611
 —jewelry, 2642
 —on manuscripts, 2638
 —mosaics, plates f.p. 2302-3, 2636
 —porphyry head, 2642
 —in Russian church, 2631
 —textiles, 2628
 —Virgin statuette, 2610
 Byzantine Church : see Greek Church, Orthodox
 Byzantine Civilization, 2629-42
 —modern debt to, 2638
 Byzantine Empire, 2617-42, 2650
 —army, 2304, 2512, 2619-20
 —claims Italy, 2691
 —Crusaders and, 2660, 2749, 2797
 —under Frederick Barbarossa, 2740
 —Gibbon's idea of, 2634
 —government, 2510, 2619
 —Jenghiz Khan and, 2617
 —Latin Empire (1205-1261), 2750, 2822
 —navy, 2620, 2621
 —rise and fall, chart, f.p. 402, 2693-4, 3125
 —and Saracens, 2347, 2350, 2358, 2408
 —Seljuk conflicts, 2780-87
 —Slav attacks, 2476
 —Turks and, 2645, 2650
 See also Constantinople ; Eastern Roman Empire
 Byzantine Law, 2630
 Byzantine Literature, 2617, 2638
 —Encyclopaedist, 2631
 —hymnology, 2631
 Byzantium, varied aspects, 2617-2642
 Byzantium, 2289
 —capital of Roman Empire, 2127-8
 —Greek formation, 1035
 —Stamboul on site, 2288
 See also Constantinople
 Byzas, founder of Byzantium, 2239

C

Cabet, Etienne, Utopian romances, 4983
 Cable, Atlantic, 4998, 4699
 Cabote, The, discoveries, 410, 3295
 —voyages (map), 3526, 3540
 Cabral, Pedro, discovers Brazil, 3295, 3535
 —at Sofala, 3401
 Caeopoe Aspidophorus, early amphibian, 116, 116
 Cade, Jack, rebellion of, 3131
 Cadets, Russian revolutionaries, 4940
 Cadiz, captured from Saracens, 2827
 —Cortes at, 4293
 —Drako attacks, 3476
 —in Elizabeth's time, 3543
 —founding, 1177
 —in Roman times, 1808
 —sack (1506), 3513
 Cadmus, reputed invention, 804
 Cadorna, Gen., defeats Austrians, 4765
 Caduceus, Hittite emblem, 738
 Caedmon, Anglo-Saxon poet, 2462
 —Illuminated MSS., 2462, 2464, 2470
 Caedmon, and Roman games, 1829
 Caere, Romans give franchise, 1107
 See also Cervetri
 Caeretan Ware, 1015

Caepio, consul, attack on Viriathus, 1760
 —defeat by the Cimbri, 1770
Caerlaverock, siege and roll, 2080
Caerleon, amphitheatre, 2113
 —Roman legion at, 2140, 2143
Caerwent, Roman-British town, 2117
 —wall, 2156
Caesar, title, 1978
Caesar, Julius, 1440, 1780, 1781-88, 1837
 —agnosticism, 1901
 —on Alexander the Great, 1123
 —Alexandria captured, 1147
 —Antipater assists, 1955
 —Antiochus defeated, 2212
 —in Britain, 1783
 —Britain described, 2137
 —calendar, 1788
 —Celts described, 1509
 —Cleopatra and, 1780-7
 —coins, 29, 1785
 —comparisons (Alexander and Napoleon), 411, 1145, 1447
 —and Crassus, 1781
 —daughter, 1873
 —divine ancestry claimed, 1876-77
 —Eastern campaigns, 1447
 —in Egypt, 1780
 —in Gaul, 1781-3, 1870
 —Gaul described, 1528
 —Hercules' cheek, 832
 —as imperator, 397
 —imperialism, 1400
 —legislation, 1788
 —linguistic investigations, 1879
 —military tactics, 1722, 1720-7, 1720-30, 1733
 —naval warfare, 1732
 —policy in early days, 1778
 —Pompey and, 1781, 1784
 —portraits, 10, 1780, 1925
 —Republican overthrow, 1863
 —Rhine bridge, 2039
 —Rubicon crossed, 1785
 —self-discipline, 1426
 —soldiers' devotion, 1733
 —and Sulla, 1773
 —Troy visited, 806
 —and Verulamiorum, 1445
Caesarea, built, 2050
 —capture of, 2347
 —in littoral territory, 717
 —siege of, 2813
Caesarius, son of Caesar, 1787
Caetani, family, 2773
Caagliari, Ennio, painting, 3039
Caehors, aqueduct, 2044
Caen, in Caedmon MS, 2470
Caen and Abel, story, 221
Caenozoia Era, 44, 80, 96
Caero, gateway, 2538
 —Hall of Science, 2540
 —mosque, 2536-37
 —Napoleon's victory at, 4185
 —prayer-niche in mosque, 2539
 —tomb of Sultan Balbars, 2827
Caister (Norfolk), Roman town, 2147
Caister, John, 1566, 3338
Calabash, as harp sound-box, 296
Calabria, Hellenic influence, 2602
Calah (Nimrud), Assyria, 646
 —bas-relief from, 970, 978
 —ivories from, 1008
 —marble slab from, 583
 —obelisk from, 880
 —rebuild, 877
Calais, English capture, 2000, 3002
 —possession, 3125
 —French retake, 3402
 —siege by Burgundians, 3120
 —staple of, 2910
 —town, 2008, 2909
Calas, Jean, judicial murder, 4004
Calatafimi, Garibaldi at, 4378
Calatrava, capture, 2600
Calium chloride, artificial plants grown from, 80
Calculus, in mathematics, 2063
Calcutta, the Black Hole, 3899
Calch, a Keuto, 815
Calendar, ancient types, 23, 24
 —Anglo-Saxon, 2444
 —Aztec, 3307, 3368
 —Caesar's, 1788

Calendar—cont.
 —Celtic (Coligny), 1520
 —Egyptian, 423
 —Jewish, 298
 —Julian Era, 2790
 —Maya, 2575, 2578-79, 2600
 —Revolutionary, 4135
 —Russian reformed, 3935
Cales, Mithridatic road at, 1581
Calico, import prohibited, 4347
California, absorbed by U.S.A., 4278, 4337
 —archaeology, 2570, 2571
 —copper in, 4501
 —early man in, 215
 —gold in, 4501
Caligula, 1852, 1863
 —builds lighthouse, 2050
Caliver man, of Civil War period, 3728
Calivers, description, 2951
Calixtines, and Hussites, 3137
Calixtus I, pope (d. 223), 2183
 —on the Trinity, 2331
Calixtus II, pope, 2655-56
Calles, Mexican president, 4337
Calvea Atrebatum: see **Silchester**
Callias, gives feast, 1281
Callias, Peace of, 1282
Callierates, attitude to Rome, 1681, 1695
Calligraphy: see **Writing**
Callimachus, at Marathon, 1090, 1098
Callimachus, of Cyrene, 2108-69
Callium, siege, 1626
Callot, Jacques, gypsy camp, 3158
 —Les Misères et Malheurs de la Guerre, 3628-5, 3641, 3645
Calmoa, Treaty of, 3315
Calonne, C. A. de, minister, 3916, 4170
Calorimeter, of Joule, 4708
Calpurnia, wife of M. J. C., 2006
Calpurnius Siculus, pastorals of, 1804
Calverley, C. S., translation of Theocritus, 1361
Calvin, John, 3335, 3356
 —capitalistic ideas, 391
 —doctrines, 1005, 3315, 3356
 —at Ferrara, 3248
 —in Geneva, 3681
Calvinism, 391, 3355-56
 —in Hungary, 3161
 —solvencies of government, 3315, 3606
 —sharing, 3312
 —Stoic doctrine in, 1907
Calvus, Roman poet, 1883
Calveadana, river, 2970
Calvodon, bear, 850, 988
Calypso, and Odysseus, 848, 850
Camail, or hood of mail, 2928, 2930
Cambaluc, building, 2855, 2858
 —Kublai Khan's capital, 2854, 3615
 —palace, 2856
Cambaules, Gaulish leader, 1625
Cambodia, destroyed by Dutch, 3551
Cambodia, buried cities in, 2406-7
Cambrai, battle of (1017), 4814, 4818, 4820
 —(1918), 4775, 4778
 —Mark IV tanks at, 4829
Cambrai, League of, 3046, 3300
Cambrian Period, classification, 90-1
 —chart of, plate f.p. 96
 —fauna, 92-3
 —fossils, 94
 —trilobites and brachiopod, 92
Cambridge, Cromwell and, 3725
Cambridge, Mass., college buildings in, 1730, 4016
Cambridge University, compulsory Greek abolished 1562
 —forged charter, 3020
Cambysses, Persian king, 400, 1038, 1141
 —Egypt conquered, 1016, 1088, 1141
Camel, Assyrian, 961
 —carrying goods, 2135
 —introduction into S.W. Asia, 222, 226
 —at King Lo's mausoleum, 3511
 —unknown in predynastic Egypt, 486
Camel, Battle of the, 2350
Camel-bird, Persian for ostrich, 2310
Camelot, vision of Grail, 2972
Camoo, Alexander the Gt., 1424
 —Roman, 398, 1846, 1850, 1938, 1979
 —masterpieces of Dioscorides, 1848, 1938, 1940

Camerarius, botanical work, 3820
Cameron, Sir D. Y., Xpores salient, plate f.p. 4773
Camerons, annexed by Germany, 4630
Camillus, conquest of Veii, 1602
 —Gauls defeat (d. 1417)
 —speech after fall of Veii, 1611
Camlann, battle of, death of Arthur at, 2447
Camouflage, of ships, 4859
Campe, Assyrian, 691
 —prehistoric, 17, 288
 —Roman 914, 1722, 1729-30
 —in Britain, 2140-41, 2142
 —in Spain, 1699
 —Terramara village, 911
Campanella, imprisonment, 3233
Campani, struggles with Samnites, 1602
Campania, early history, 1602
 —Romans and, 4164
 —sanctuary of Isis, 2091
Campanians, character, 1418
Campbell, Sir Colin, at Lucknow, 4164
Campbell, Thomas, and classicism, 4310
Campe, N. Arden, founding, 1177
Campe, J. H., German educationist, 3053
Camperdown, battle of, 4013
Campignian Period, reconstruction of family, 311
 —regional chronology, 220
Campion, Edmund, 3555, 3556
Campi Raudii, defeat of Cimbri, 1770
Campo Formio, Treaty of, 4003, 1183
Camulodunum: see **Colchester**
Cananites, Babylonian culture, 813
 —Hebrew influence, 813
 —high places, 821, 822
 —Israel's war with, 813, 816
 —and Khauri invaders, 800
 —in Palestine, 844
 —subdued by Palasani, 676
Canada and American War of 1812, 4112
 —War of Independence, 3908
 —archaeology, 2571
 —Asiatic immigrants, 320
 —British acquisition, 4025
 —Colbert's policy, 3856
 —division, 4597
 —Dominion created (1867), 414, 4607
 —evolutionary centre, 181
 —federation, 4393
 —foreign relations, 4624
 —French expelled, 411
 —settlements, 3548, 4005
 —habitants, 4602
 —history from 1815, 4601
 —loyalty to England, 4595
 —map, 4601
 —militia system, 4624
 —union of 1867, 395
 —United Empire Loyalists in, 4110
 —and W. Indies, 4630
Canada Act (1791), 4597
Canada Company (France), 3949
Canadian Pacific Ry., 4607
Canadians, at Vimy Ridge, 4771
Canadian Scottish, entering Mons, 1783
Canal, ancient, 1988-89, 2050
 —in England, 4252, 4315
Canal du Nord, barrier to tanks, 4820
Canaleto, Antonio, Charing X in 1753, 4240
 —Plazza S. Marco, 3041
 —Ranelagh rotunda, 4212
 —school of, Plazetta, 3042
Canary Islands, aborigines, 3528
 —possession of, 3530
Cancer, modern problem, 5057
 —modern radium treatment, 5038
Candia, besieged by Knapiri, 3002
 See also **Crete**
Candle, medieval use, 3415
Candlemas, witches' sabbath, 3263
Cannae, battle of, 1589, 1658, 1706
 —Roman tactics, 1726
Cannes, Conference at (1922), 4888
 —Napoleon lands at (1815), 4107
Cannibalism, amongst Aztecs, 3376
 —among equatorial races, 336
 —in Russia, 3928
 —in Thirty Years' War, 3623, 3644
Canning, Lord, 4404, 4405
 —vicerey of India, 4407

- Canning, George, alliance with Spain, 4192
 —death, 4203
 —and non-intervention, 4200
 —portrait, 4265
Cannon, African 13th cent., 3394
 —at Agincourt, 2951
 —medieval, 2950–53, 3160
Cano, J. S. del, 3537
Cano, Melchior, opposes Jesuits, 3686
Canon, musical, early English, 2966–67
Canon Hibernensis, and ecclesiastical law, 2683
Canon Law, 3018–19
 —Irish, 2683
 —sources and jurisdiction, 2158–59
Canons Regular: see Austin Canons
Canossa, Henry IV at, 2491, 2648, 2649
Canova, Antonio, sculpture, 4036
Canabrians, subjection of, 1844, 1869
Cantacuzenus, John, rule, 2094
Canterbury, Abbey, 2461, 2463
 —Cathedral, murder of Becket, 2741
 —plan 12th cent., 3421
 —surrender of Black Prince, 2932–3
 —city walls, 4429
 —Roman town, 2117
Canterbury, Archbishop of, in Convocation, 3668
 —obituary primacy, 2646
Canterbury Tales, language, 3223
Cantien, early Spanish, 2007
Cantino, Alberto, map of, 3593
Canton, anti-foreign riots (1925), 4002
 —British traders oppressed, 4053
 —medieval trade, 2009
 —Cleric of Bordenone on, 3508
 —rise of, 3510
 —in 1699, 3523
Cantonese, dominant political force, 4003
 —immigration control and results, 4005
 —rebellious against Manchus, 4038–40
 —supremacy in China, 4066
Canisium, Hannibal at, 1001
 —wine-vessel found, 2097
Canute, King, 2509
 —and Christianity, 2163, 2560
 —conquers England, 2605
Canyon City, vertebrates, early, 111
Cap-a-pie, 2020, 2036
Cap Blanc, horse from frieze, 252, 256
Cap Colony: see Cape of Good Hope; South Africa
Capella, star, age of, 63
Cape of Good Hope, British acquire (1795), 4166, 4600
 —Dutch settlement, 3551
 —first English expedition, 3545
 —founded, 411, 3763
 —rounded by da Gama, 410
 —Diaz, 3143
 —in 1777, 4011
Capernaum, sculpture from, 817
 —synagogue at, 1959
Cape St. Vincent, battle, 4693
Capot Dynasty, 2507
Cape to Cairo Railway, 4632, 4633
Cape Trafalgar, Moorish battle, 3268
 —see also Trafalgar
Cape Verde Islands, discovered, 3531
Caphor: see Crete
Capital, connotation of, 388
 —constant demand, 4098
 —and medieval guilds, 2010, 2023
Capital, in architecture, 1303, 1915
Capitalism, beginnings, 391, 3486
 —economics, 4993
 —a fact of nature, 5077
 —medieval development, 2917, 2026
 —misconceptions, 4095
 —socialist condemnation, 4077
 —in Tudor England, 4420
Capo d'Istria, Count, 4264
Caporetto, Italian disaster at, 4776
Cappadocia, Babylonian colony, 432
 —business files, 691
 —clay tablets, 591
 —in Hittite Empire, 728
 —Roman province, map, 406
 —Sargon's expedition to, 521
 —Semitic influences, 808
Cappel, battle of, 3312
Capeians, art of, 201–2, 250–1, 265
 —with bow, 201, 251, 278
Capeians—cont.
 —chronology, 220
 —clothing, 201, 202, 289
 —Magdalenians ousted, 629
 —in N. Africa, 615
Capua, destruction (211 B.C.), 1500
 —Etruscans in, 1160, 1162
 —Hannibal in, 1590
 —Lombard principality, 2692
 —mint, ancient, 1612
 —Normans in, 2615
 —Roman siege, 1660
Caracalla, emperor, 2109–10
 —dedication, 2089
 —franchise extended, 407, 1909
 —parents, 1980
 —portraits, 1926, 2110
 —presented to Senate, 2111
Caracalla, Baths of, plate f.p. 2020
 —seen from air, 2021
Caracae, retaken by royalists, 4324
Caractans, chief of Ordovices, 91
 —assist Romans, 1854
Caraculius, emperor of Britain, 2124
Carbon dioxide, discovered, 4831
Carboniferous limestone, formation, 161
 —stratification, 191
Carboniferous Period, plate f.p. 96, 102–105
Carosanne, fortifications, 2813
 —rap of, 1883
Caradon: see Carthage
Caracemish, animal deities from, 727
 —attacked by Assyrians, 890
 —captured by Midian, 731
 —Phoenicians in, 680
 —door-jamb with hieroglyphs, 725
 —excavations, 591
 —Hittite capital, 593, 799
 —priestesses, 371
 —Mittannians defeated at, 662
 —priests with gazelles, 735
 —relief showing games, 581
 —of Ishtar, 581
Carahemish, battle of (605), 832
Caraw, Sir P., sent against pirates, 3863
Caria, attacked by Achaeans, 737
 —Philistines connected with, 796
 —undecipherable inscriptions, 807
 —warriors employed, 1903
 —and Washasha, 797
Caribbean Sea, pirates in, 3530, 3807
Carinus, emperor, 2122
Carleton, Sir Guy, in Canada, 4590
Carisle, Roman occupation, 2144
Carlists, satire on their war, 4270
 —suppressed (1840), 4270
Carloman (n. of Charlemagne), 2417
Carloman (s. of Charles Martel), 2415
Carlos II (Spain), portrait, 3755
 —succession, 3754
Carlos III (Spain), 3902, 3913
Carlos IV (Spain), 3915, 4089
Carlos, Don, Spanish claimant, 4270
Carlowitz, Treaty of, 3754, 3761
Carlsbad, Decease, 4260
Carlyle, Thomas, 10, 18
 —and British insularity, 4544
 —contrasted with Macaulay, 4537
 —and social reform, 4438, 4439
Carmel, Mount, order of friars on, 2282
Carmelites (White Friars), 2280, 2282
 —organization, 2284
Carnae, megaliths and avenue, 622–23
Carnarvon, Lord, and Canada, 4607
 —and S. Africa, 4619
Carnades, Greek philosopher, 1763
Carneseochi, secretary to Clement VII, execution, 3233
Carnot, Lazare N. M., expelled from Directory, 4093
 —a Jacobin, 4142
 —military genius, 4090
 —and Napoleon I, 4179
 —portrait, 4039
Carnot, Sadi, heat discoveries, 4708
Carnuntum, 1987
Carobert (Charles Robert), of Hungary, 8004, 3163
Caro-Telegina civilization, 1002
Carol of Rumania, portrait, 4682
Carollan, coal and iron in, 4497
 —refugee convicts, 411
 —secedes from union, 4390
 —settlement in, 4007
Caroline, Queen, 4222, 4223
Carolingian Architecture, 2433, 2440, 2441–43
Carolingian army, 2134, 2436
Carolingian Art, 2433–37, 2440–41
Carolingian Empire, 2427–43
 —governmental system, 2664
 —partitions, 2403, 2605
 —see also Europe; France
Carolingian House, beginnings, 2260
 —establishment, 2354
 —genealogy, 2495
 —restoration (936), 2502
 —see also Charlemagne
Carollian Literature, 2438
Carpaccio, Vittore, Venetian senators, 3035
 —shipping, 3038
Carpathians, broad-heads in, 228
 —formation, 110
Carpenter, Babylonian, 582
 —Egyptian, 556, 558
 —Roman, tools, 2030
 —supernatural basis, 352
Carpenters and Joiners' Society, and picketing, 4677
Carpet-bagger, 4192
Carraek, Portuguese, 3535
Carpi: see John Plano de Carpi
Carporatians, Gnostic sect, 3092
Cartana, Venustiano, Mexican president, 4387, 4728, 4730
Cartari, family, 3030
 —art patronage, 3218
Cartiae, Persian capture, 2118
 —Roman defeat, 1782, 1814, 1876, 2125
Carstens, A. A., classicism of, 3903
Cartegena, expedition (1740), 4025
 —foundation, 1586, 1662
 —Roman capture, 1591
 —Sulpio takes, 1061–2, 1761
 —view, 1662
Cartier, Lord, Walpole's successor, 3892
Cartea (Spain), 1716
Cartel, extension of, 5002
 —German syndicates, 5000
Cartenova, imperial victory, 2764
Cartier, Elizabeth, blue-stocking, 4216
Cartilage, 1176–82, 1575–81, 1613–42, 1655–66
 —Agathocles, invasion, 1410
 —ancient importance, 1179
 —Arab destruction of, 2352
 —Byzra Height, 1614, 1615
 —Byzantine basilica, 2352
 —cisterns at, 2042
 —commerce, ancient, 1546, 1630, 1641
 —destruction of, 1086, 1697–98
 —empire, 1613–42
 —in Spain, 1679, 1581, 1664
 —Etruscan alliance, 1182
 —founding of, 884, 1176–7
 —Greeks, clash with, 1181–82
 —harbour, plate f.p. 1614, 1616
 —hill of St. Louis, 1614, 1615
 —lay-out of city, 1617, 1621, 1620
 —Mamertines helped by, 1575
 —maps, 1176, 1615
 —modern, 1177, 1614, 1615
 —Numidia, friction with, 1697
 —reconstruction of city, plate f.p. 1614
 —Roman aqueduct, 3042, 2043
 —possession, 1015, 1016
 —Rome, treaty with, 1418, 1572, 1599
 —sea power, 1094
 —Sicilian conflicts, 1104, 1249, 1575
 —size of, 1179, 1614–15
 —Vandals in, 2205
 —warehouses, 1638, 1630
 —women in, 1618, 1642
 —see also Hannibal; Punic Wars; Pyrrhic War; Rome
Carthage, New: see Cartagena
Carthaginians, art, 1617–30
Carthaginian Empire: see Carthage
Carthaginian Religion, 1618–21, 1622–28
Carthaginians, character, 1642
 —language, 1620
 —pursuit of wealth, 1182
 —Semitic dialect introduced, 1900
 —see also Phoenicians
Carthusians, order of life, 3419
 —prisoners in Tower, 3357

Cartier, Jacques, explorations, 3603
 Cartoon, Political, early example, 3298
 Cartouches, of sun god, 744, 746
 Cartridge, introduced by Gustavus
 Adolphus, 3643
 Cart, Wheeled, Aryans evolve, 448
 —Scythian, 931
 —from Ur (c. 3500 B.C.), 510
 Cartwright, Rev. Edmund, power weav-
 ing, 4350
 Cartwright, Thomas, Admonition to the
 Parliament, 3707
 —faith in Presbyterianism, 3717
 —portrait, 3708
 —on punishment, 3720
 Caras, emperor, 2121-22
 Carwall, Mina: see Queronalle, Louise
 Caslon, William, type designs, 3195
 Caspian Sea, anc. connexion with
 Mediterranean, 466
 —early geographers' view, 2075
 —penetration to, 881
 Casque: see Helmet
 Cassander, ambitious and power, 1412-3
 —murder of Alex. the Gt.'s family,
 1412-13
 Cassel, French victory over Flemings,
 3081
 Cassiodorus, monastery founded, 2282
 Cassis rufa, prehistoric shell, 300
 Cassiterite, prehistoric uses, 634
 Cassius, consul, defeat by Helvetii, 1770
 Cassius Avidius, Parthian campaign,
 1873
 —revolt of, 1974
 Cassius Chabreas, assassination of Cali-
 gula, 1853
 Cassius, Gaius, 1700-91
 Cassius, Spurius, why killed, 390
 Cassius, Treaty of, 1600
 Castagno, Andrea del, painting 'Petrarch
 and Boccaccio', 3224
 Casté, Babylonian, 571
 —beginnings, 1203
 —China, 238
 —Hinduism and growth of, 2393-2407
 —India, 237, 238, 453
 —organization of, 2396
 Castel del Monte, Frederick II's castle,
 2834
 Castel Gaudolfo, site of Albin Longa,
 3616
 Castiglione, Baldassare, 3240
 —The Courtier, 3242
 —learning, 3220
 Castile, kingdom, consolidation, 2228
 —creation, 2408
 —in 11th and 12th cents., 2047
 —extent, 3265
 —government, 3114
 —organization against piracy, 3528
 —united with Aragon, 3144, 3265, 3613
 —Leon, 2047, 2827
 Castilla, Ramon, Peruvian dictator,
 4332
 Castelmagna, Barbara Villiers, Lady,
 4600
 Castleragh, Viscount, 4200
 Castla Rising, castle, 2709
 Castles, connexion with manor house,
 3135
 —Carolingian, 2132
 —Crusaders', 2796, 2809
 —of Homeric Troy, 865
 —of Hunyadi Janos, 3154
 —medieval barons, importance, 2068
 —military, 2834, 3082, 3203, 3423-24,
 3129, 3435
 —mounted, origin, 632
 —Norman, 2700, 2709, 2712, 2714-16,
 2724
 Castor and Pollux, at Lake Regillus,
 1761, 1764
 —worship, 1761, 1764, 1768
 Castriot, George: see Scanderbeg
 Castro, Venetian tyrant, 4331
 Castulo, Roman relief from, 1997
 Catacombs, Christian, 2187, 2188
 —paintings from, 2172, 2175, 2179-80
 —Jewish relics from, 1960
 Catalan Map, of Far East, 3507
 Catalans, Grand Company of, 2001
 Catalonia, friendly to allies (1700), 3750
 —revolts against Spain (1840), 3597
 Catanzaro, Countess of, 2898

Catapult, war engine, Greek, 2070
 —Roman, 1728
 Cateau-Cambrésis, Treaty of, 3462
 —gave Indies to Spain, 3539
 Caterina Cornaro, queen of Cyprus,
 Titian portrait, plate f.p. 3945
 Cathay, Ansel Stein's book, illus. from,
 1562-64
 See also China; Polo Marco;
 Turkistan
 Cathedral, Gothic, 2885
 See also Architecture
 Catherine I (of Russia) succeeds Peter
 the Great, 3887
 Catherine II (the Great, of Russia), 366,
 3738-42
 —accession, 3902, 3910
 —and the French Revolution, 4084
 —pact with Austria, 4090
 —verdict of history, 377
 Catherine of Braganza, 3999
 Catherine, S., of Siena, 368, 377
 —marriage, by Voronezh, 3016
 —support of Italian pope, 3034, 3068
 Catherine of Württemberg, married
 Jerome Bonaparte, 4291
 Catherine de' Medici, 367, 3466
 —and Bartholomew massacre, 3465
 —early Huguenot policy, 3463
 —regency, 3401
 Catholic Faith, early view, 2330
 Catholic League, 3474, 3580
 —ending, 3470
 Catullus, Lucius Sergius, 1778, 1890
 Catiline conspiracy, 1770
 Catinaut, French general, 3748
 Cato, the Censor, 1895, 1830, 1889
 —agricultural treatise, 1888-89
 —character, attitude to, 1666, 1697
 —defeat of Antiochus, 1639
 —on Gauls, 1610
 —Greek ideas, attitude to, 1702
 —on kings, 1761
 —on Latin language, 1888
 —oratory, style of, 1881
 —provincial rights advocated, 1708
 —on Roman constitution, 1593
 —State, efforts for the, 1712
 —subjugation of Spain, 1694
 Cato, of Utica (the Younger), 1830
 —in Cyprus, 1781
 —Stoic teaching, 1906
 —suicide, 1787
 Cats, ancestry, 133
 —in Egypt, 386, plate f.p. 552, 700
 —mating, 710
 —on Minerva fresco, plate, 755
 —on Mycenaean dagger, plate 759
 —in witchcraft, 3202
 Cattle, first domestication, 222
 —numbering and penning, Egypt, 711
 —sold by Bushmen, plate, 204
 —a shoot, Kansas, 4504
 —in Sumerian frieze, 522
 —uses, anc. Egypt, 486
 Catullus, Clodia's attraction for, 1828
 —and Lesbia, 1828, 1888
 —poems, 1883, 1888
 Catulus, proconsul, victories over
 tribes, 1770, 2212
 Caucasians, differentiation of, 398
 —languages, North and South, 323
 See also Nordic Race
 Caucasus, possible cradle of Egyptians,
 38
 —upheaval, 110
 Caudina Forks, Roman defeat at, 1604
 Cavalier, Jean, leader of Cevennes pro-
 testants, 3871
 Cavalry, of early Teara, 3923
 —Gustavus' organization of, 3644
 —medieval, firearms used by, 2954
 —tactics of, 2954, 2955
 —Mogul, 3779
 —of 17th century, 3012
 —Thirty Years' War, 3650-51, 3654
 Cava Art, 200, 201-02, 256-65
 —anatomy, knowledge, 199
 —carving, 215, 248-53
 —cave with paintings, 207
 —disabilities of labour, 257
 —engravings, 254-55, 258
 —four phases, 254-55
 —human figure in, 198-202, 206
 —masterpieces of drawing, 258-59

Cavo Art—cont.
 —outline of, 257, 260
 —ritual aspect, 233
 —sculpture, 198-200, 251-53
 —superior craftsmanship, 203
 See also Altamira; Aurignacian;
 Capisan; Magdalenian; Palaeo-
 lithic
 Cava-dwellings, 207, 245-46
 —decoration, 198-202
 —floor, 152
 Cave Man, Danish records, 141
 —flint tools, 27, 245
 —Newolithic, probable appearance,
 166-67
 —Palaeolithic drawings and sculp-
 tures, 198-206
 —records, 142-44
 Cavonish, Henry, researches, 3831
 Cavonish, Thomas, circumnavigates
 world, 3512
 Cava Painting: see Cave Art
 Cava Period, approximate dates, 27
 —sequence of, 113, 141
 Caves of the Thousand Buddhas, 2557
 Cavour, Count, 4375, 4376, 4378
 —and Italian liberty, 3615
 Cawnpore, the memorial well, 4463
 Caxton, William, 3191-2
 —devices, 3193
 Caxton: see Casteln
 Caxpas Yupanqui, Inca, reign, 3380
 Cecil, Lord Robert, and Jeanne of
 Nations, 4917, 4918, 4919, 4926
 Caxton, W. Saxon ruler, victory at
 Bortham, 2271
 Ceceps, Albanian king, tomb, 2293
 Cefalu, cathedral, 2763
 Celobes, stone images, 295
 Celastus III, pope, death, 2745
 Celibacy, of clergy, enforced, 2400
 —introduction, 390
 —result, Middle Ages, 380
 Cell, artificial production, 89
 —human development from, 181-183
 Cellini, Benvenuto, Autobiography,
 3223, 3220, 3240
 —gold salt-cellar, 3239, 3240
 —Percuss, statue of, 3240, 3243
 —and Savonarola's discovery, 3218
 Celsus, Latin writer, De Medicina of,
 1895
 Celsus, philosopher, attack upon Chris-
 tianity, 2719
 Celt (weapon), making, 272
 —Neolithic, 271
 Celtiberians, resist Rome, 1600-1700
 Celtic, definition, difficulty, 1507, 1510
 Celtica, in Roman Gaul, 1782
 Celtic Art, 1512-22
 —enamel work, plates f.p. 1520-21
 —illuminated MSS., plate f.p. 2155,
 2673, 2680
 —metal work, 1512-18, plates f.p.
 1520-21
 —sculpture, Irish crosses, 2674
 Celtic Church, dominated by Latin, 2658
 Celtic Culture, introduced into Ireland,
 1521
 —in La Tène Period, 1517
 Celtic Languages, 1507-10
 —affinities with Latin, 326, 1870-80
 —in Britain and France, 1094
 —place names, map, 302, 2151
 —rejection of letter p, 807
 —words in Ogham characters, 1509
 Celtic, Latin, use of term, 1520
 Celtic Literature, ancient saga, 1521
 Celto-Italic, period in Latin lang., 1880
 Celts, 942-13, 1507-20, 2471
 —ancestors of, 912
 —armour, 1513, 1516
 —Asia Minor distribution, map, 1503,
 1510
 —in Britain, 1509, 2271, 2450-51
 —cemeteries of, 912
 —in central Europe, 2212
 —European distrib., map, 1508, 1510
 —and German language, 328
 —monasticism, 2275
 —plough, early, 346
 —political significance of term, 360
 —religion, 1522, 1523, 1529
 —Saxon resemblance, 309
 —women's status among, 370

- Cemetery, Anglo-Saxon, 2451
 —Celtic, 912
 —Illyrian uncultured, 911-15, 917
 —*See also* Burial Customs
- Genomani, alliance with Rome, 1608
 Gensor, duties, in anc. Rome, 1800
 Censorship, French, abolition, 4141
 —in pre-Revolution France, 3313, 4121
- Genans, in ancient Rome, 1796, 1800
 —Chinese, 3509
 —first, in India, 3770
- Centenarius, office of, 2430
- Central America, aborigines, 2565
 —early cultures, 2566, 2574, 3362
 —independent republics, 4324
 —long-headed early types, 215
 —physical formation, 4320
 —pyramids, 4338
 —pyramids, 2590, 2595
 —*See also* Aztec; Maya; Mexico
- Central Heating, Roman system, 2153
- Central Pacific Railway, meets Union Pacific, 4502
- Centrosphere, gaseous core of Earth, 79
- Centum Languages, Indo-European group, 807
- Ceods (Churils), 2452-54
- Cephalaspis, early vertebrate, 112
- Cephalopod, shell, Cambrian Period, 94
- Copheid Variables, significance of, 50, 60
- Ceramics: *See* Pottery
- Ceratodus, fish with lung, 111
- Ceraunus: *See* Ptolemy Ceraunus
- Cerberus, with Zeus, 1371
- Cerdá, Don Luis de la, and the Canary Is., 3528
- Cerdio, English royal house, 2423
- Cereals, in Aegean Islands, 469
 —in ancient Egypt, 402
 —in earliest Sumeria, 466
 —in monsoon lands, 389
 —oldest in use, 217, 218
 —origin in grasses, 285, 345
- Ceres, in Ambavallia festival, 1747
 —identical with Demeter, 1752
- Cerathrus, Gaulish leader, 1525
- Cerules, battle of, 2956
- Cernunnos, god of prosperity, 1523
- Cervotri, Etruscan necropolis, 1157
 —sarcophagus from, 1171
 —tomb, plate *f.p.* 1168
- Cesena, Michael of, teaching, 3072
- Cettine, contrasted with Bradford, 4341
- Centa, captured from pirates, 3520
- Covenens, protestant war in, 3871
- Ceylon, Cheng Ho at, 3513
 —Mogul jewels from, 3701
 —monasteries, 2286
 —occupied by British (1705), 4600
- Cézanne, Paul, Les grands Arbres, plate *f.p.* 5027
 —post-impressionism, 5020, 5027
 —return to classicism, 4315
 —self portrait, 5027
- Chacabuco, battle of, 4322
- Chaco, timber forests, 4328
- Chaco del Agua, cave painting, 202
- Chacrona, battle of (c. 333 B.C.), 402, 1405
 —Alexander the Gt. at, 1427
- Chaeronea, battle of (c. 30), 1774
- Chaghatai, Mongol group, empire, 2819
- Chaghri Beg, Seljuk, 2781-82, 2784
- Chain Mail: *see* Mail Armour
- Chair: *see* Furniture
- Chaispi (Teispes), Persian king, 1136
- Chalcædon, founding of, 2289
- Chalcædon, Council of, decisions, 2339
 —priesthood of emperors, 2482
 —primacy of Roman See, 2481
- Chalchihuitlicue, Aztec goddess, 3366
- Chalcidian League: *see* Olynthian
- Chalcidian Peninsula, revolt against Athens, 1239
- Chalcolithic Era, 634
 —*See also* Neolithic Period
- Chaldeans, in Babylonia, 832, 884
 —in Ur, late, 533
- Chaldae-Babylonian Empire, destruction, 1044
- Chaldon, Surrey, mural plg. of hell, 3010
- Chalices, Byzantine, 2641
- Chalicotherium, description, 134
- Chalk, Bronze Age carvings in, 635
 —Cretaceous Period, 100
- Châlons, Attila's defeat, 2207
 —sworn friends near, 2219
- Chalukyas, empire in India, 2396
- Chaluz, castle, Richard I's death, 2745
- Chamberlain, Sir Austen, and Geneva Protocol, 4931
 —and Locarno Pact, 4932
- Chamberlain, Joseph, and imperial preference, 4177, 4610
 —tariff reform campaign, 4183
 —on thinking imperialy, 399
- Chambers, Sir Wm., Somerset House, 4238
- Chambre des Députés, under Louis XVIII, 4209
- Chambre des Pairs, under Louis XVIII, 4200
- Chamillard, Michel, 3997
- Champagne (country), medieval importance, 2901
- Champaigne, Philippe de, portraits by, 3587, 3586
- Champ de Mars, Lafayette at, 4163
- oath of loyalty at, 4083, 4083
- Champlain, Samuel, battle with Iroquois, 4015
 —governor of French Canada, 3548
- Channarya, minister to Chandragupta, 1416
- Chance, Roman goddess of, 901
 —*See also* Fortuna
- Chancellor, Richard, in Moscow, 3923
 —search for N.E. passage, 3570
- Chancerybury Ring, British camp, 17
- Chandela Dynasty, temples built by, 2402
- Chandragupta, (Gupta dynasty, c. 320 A.D.), 2128, 2396
 —empire founded by, 2209
 —and liberation of Hindu India, 2400
- Chandragupta, or Saurastrotys (Maurya Dynasty, c. 322 B.C.), court of, 1495
 —donation, 1587
 —empire established in India, 1415, 1495
 —treaty with Seleucus, 1480-00
- Chandragupta Vikramaditya, 2200
 —iron pillar, 3178
- Chandu, Kuhlai Khan's palace, 2854
- Ch'ang-au, Chinese capital, 3515
- Chang Ch'ien, discoveries of, 2100
- Chang Liang, Chinese counsellor, 2104
- Chang Tao-Ling, hierarchy, 2104
- Chang Tao-lin, Chinese military dictator, 4002
- Channel Is. megalithic monuments, 270
- Chao Meng-fu, Chinese artist, plate *f.p.* 2553, 3520
- Chao Yung, painting, 2851
- Chapel, in unslava, 491
 —private, in ancient Ur, 532
 —12th cent., over Neolithic tomb, 269
- Chapelain, distributor of royal patronage, 3802
- Chapelier, Le, law against combination of workmen, 4133
- Chapelle-aux-Saints, Neanderthal skull, 166-67
- Chareol, Egyptian pounder for, 687
 —in iron industry, 4342
- Changes, in heraldry, 2931, 2932-33
- Charing Cross, Old Spring Garden, 4212
 —in 1753, 4240
- Chariots, Akinator and wife in, 741
 —of Ashur-nasir-pal II, 877
 —Athenian, 1277
 —Bronze Age, 633
 —Chinese, Han dynasty, 2103
 —Egyptian, 682, 711
 —charge at Kadesh, 673
 —Imperial army, 682
 —Greek, 1277
 —Minoan, 786, 787
 —in use, 632
 —scythian, of Darius, 1440
 —medieval, 2950
 —war, Egyptians learn use of, 657
 —introduced by Hyksos, 435
- Charioteer, Etruscan tomb of, 1164
 —Greek statues, 1298, 1312
- Chariot race, Byzantine, 2295, 2298
 —colour factions, 2296
 —Etruscan, 1169
 —Roman, 1829, 2021, 2022-23
- Charity Organisation Society, 4410
- Charlemagne, administration, 2128-36
 —Aix-la-Chapelle built, 2126-28, 2139, 2440
 —attitude to Church, 2129, 2488
 —Avars overthrown, 3147
 —Bible revision, 3157
 —conquest, 2417
 —coronation, 2418, 2419, 2427, 2458
 —court, 2127
 —crown, reputed, 2419
 —and Cup of Solomon, 2318
 —death, 2421
 —defence by Roland, 2975
 —divine origin of rule, 2427
 —dominial system, 2063
 —epic cycle, 2439
 —and Holy Roman Empire, 408, 2410, 2835-36
 —influence on feudalism, 2061
 —Irishmen at court, 2085
 —literary culture revival, 2085
 —marriage, 2417
 —monarchic conception, 2427, 2437
 —patron of art and learning, 2437
 —polygamy, 3233
 —Pope Leo III and, 2118-20, 2487
 —proclaimed Roman Emperor, 408, 2418, 2419, 2420
 —Roman Patrician, title, 2418
 —Rome despoiled, 2768
 —statue on horseback, 2116
 —throne at Aix, 2126
 —tomb at Aix, 2426, 2428
 —Vikings and, 2320
- Charlevoix, acquired by Louis XIV, 3741
 —captured by Napoleon, 4108
- Charles, emp. of Austria, accession, 4700
 —and submarine campaign, 4857
- Charles I, emperor: *see* Charlemagne
- Charles II, the Bald, emp. 4281, 2422
 —his Bible, 2421, 2432, 2437
 —death, 2493
 —friend of Johannes Scotus, 2088
 —kingdom, 2463, map, 2422
 —and Northmen, 2490
- Charles III, the Fat, emperor, 2405
- Charles IV, emp., 3003-06, 3007
 —Golden Bull promulgated, 3007
- Charles V, emp., abdication, 3517, 3459
 —accession, 3301, 3312
 —and Clement VII, 3310-11
 —empire, 3301
 —and the Interim, 3310
 —in Italy, 3310
 —Magellan serves, 3537
 —portraits, 3333, 3393, 3317
 —reign of, 3300
- Charles VI, emperor, 3333
 —death, 3386
- Charles VII, emperor, accession, 3392
 —death, 3893
- Charles III, the Simple, of France
 —accession, 2493
 —reign, 2495, 2496
- Charles V, the Wise, of France, 3001
 —coronation, 3003
 —death, 3002
 —Etruscan Marcel and, 3002, 3004-05
 —as regent, 3001-02
- Charles VI, of France, accession, 3092
 —insanity, 3092
 —marriage, 3127
 —Parisians submit to, 3091
- Charles VII, of France, 3131, 3132, 3143
 —elaine throne, 3129
 —Joan of Arc and, 3130, 3133
- Charles VIII, of France, 3144, 3297
 —enters Florence, 3218
 —in Italy, 3208
 —marries Anne of Brittany, 3144, 3010
- Charles IX, of France, 3463
 —and St. Bartholomew, 3465
- Charles X, of France, accession, 4266
 —deposition, 4203
- Charles I, of St. Britain, accession, 3589
 —beheaded, 3590, 3591
 —broadside on marriage negotiations, 3719
 —costume under, 3711
 —death mask, 3551
 —economic reasons for failure, 392
 —and five members, 3674
 —in House of Lords, 3662

Charles I—cont.

- methods of warfare, 35-19
- Parliament under, 3661
- and Petition of Right, 3664
- Parliaments and, 3720
- Smelling's miniature, 3721
- Charles II**, of Gr. Britain, bust of, 3745
- comparison with George I, 4222
- death, 3744
- female influence, 3998
- knights Henry Morgan, 3814
- lands at Dover, 3690
- and Louise de Quérouaille, plate f.p. 3983
- on Oliver Cromwell, 3721
- residence in France, 3831
- restoration, 3581
- and Royal Society, 3820
- in Scotland, satire, 3553
- Charles I**, of Naples and Sicily, 2825-26, 2830
- crowned and seated figure, 2843
- death, 2831
- Provence obtained, 2826, 2820
- Charles II**, of Naples, struggle for Sicily, 2831
- Charles the Bad**, of Navarre, 3009
- China France, 3092-93
- Etienne Marcel and, 3096
- Charles I**, of Spain: see Charles V, emperor
- Charles III**, of Spain, banishes Jesuits, 3089
- Charles IX**, of Sweden, seizes throne, 3586
- Charles X**, of Sweden, 3001-02
- portrait, 3002
- Charles XI**, of Sweden, accession, 3002
- defeats Denmark, 3750
- Charles XII**, of Sweden, accession, 3751
- death, 3881, 3836
- genius, 3762, 3877
- portrait, 3762
- in Turkey, 3880
- Charles XIII**, of Sweden, accession, 4102
- Charles XIV**, of Sweden: see Bernadotte, J. B.
- Charles of Anjou**: see Charles I of Naples and Sicily
- Charles**, s. of Charlemagne, viceroy in Austria, 2418
- Charles**, duke of Lorraine, on caucuballism, 3024
- at siege of Vienna, 3762
- Charles**, s. of Lothar, attempt to gain power, 2423
- Charles**, d. of Orleans, captured at Agincourt, 3100
- Charles**, the Rash, or the Bold, duke of Burgundy, 3143
- death, 3144
- Charles Albert**, of Bavaria, married daughter of Charles VI, 3884
- Charles Albert**, of Sardinia, constitution granted, 4367
- death, 4370
- portrait, 4275
- Charles Edward** (Young Pretender) at Culloden, 3879, 3894
- Charles Felix**, of Naples, 4201
- Charles Martel**, 2354, 2359, 2415
- monastic endowments confiscated, 2270
- Saracens defeated, 2340, 2301, 2486
- Charles Rebert**, of Hungary: see Carebert
- Charleston**, only town in colonial South, 4613
- Charlotte**, of Mecklenburg-Stroitz, married George III, 4223
- Charlotte Square**, London, 4239
- Charns**, in ancient Assyria, 971, 973
- Aurlingean, 217, 250
- early Chinese or Buddhist, 2557
- Egyptian, 1019
- and Cretan compared, 469
- on Egyptian dead, 650
- miniature bull-rearers, 299
- painted pobbles as, 265
- Phoenician, 1637
- Salto, 1019
- Chara** (Carla), origin of word, 2105
- Chartered Companies**, and Elizabethan trade, 3641
- Chartered Company**: see British S. Africa Company
- Charter Oath**, taken by Mikado, 4415
- Charter of Majesty**, and Bohemian toleration, 3588
- Chartism**, origin, 4135
- political socialism, 4981
- Chartists**, on Kennington Common, 4437
- methods, 4365
- Chartres Cathedral**, 2875, 2888
- sculptured figures, 2882
- stained glass, 2879, 2884, 2885
- Chastity**, in monasticism, 2278
- S. Augustine and, 2333
- Chatalja Lines**, 2201
- Chatar**, Mogul painter, 3779
- Chateaubriand**, Geoffrey de, motto, 2091
- Chatsubriand**, René, Vicomte de, 4311
- a royalist, 4300
- Châteaufort**, Alphonse imprisoned at, 4166
- Château Gaillard**, ruin of, 3123
- Château**, Marquis du, associate of Voltaire, 4064
- Chatham**, William Pitt, 1st B., forms new ministry, 3907
- great oratory, 4212
- imperial work of, 411
- parliamentary reform, 4431
- portrait, 3590
- resignation, 3902
- Chaucer**, Alice: see Suffolk, Duchess of
- Chaucer**, Geoffrey, Clerk of Oxenforde, 3020
- description of parson, 3408
- language of, 2614, 3223
- popular music pictured, 2070
- Chauvinist**, identified with Imperialist, 307
- Chesapeake**, London, coronation procession of Edward VI, 4450
- in 1813, 4252
- in Elizabethan times, 3588-69
- St. Mary-le-Bow, 4237
- Chedworth**, Roman villa, 2151, plate f.p. 2152
- Chedra**, Russian, 4958, 4959
- Chellean Period**, 147
- coup-de-pole, 241
- flint tool, 27, 37
- hand-axes, 146
- Cheltenham**, in 18th century, 4254
- Chemin des Dames**, captured by Allies, 4775
- German troops on, 4781
- Nivolle's attack on, 4772
- Chemistry**, and medicine, 3828
- Arabic knowledge, 3201
- Assyrian, 974
- commercial, in U.S.A., 4737
- developed from alchemy, 352, 359, 364
- war uses, 4824
- Chemosh**, god of Moab, 639
- Ch'eng**, Chinese emperor, 444
- Cheng Ho**, Ming naval leader, 3513
- Cheng Tung**, Chinese emperor, 3123
- Cheops**: see Kimfu
- Chephren**: see Khafra
- Chespestre**, castle, 2709
- Chremsian**, where spoken, 320
- Cherokee syllabary** (alphabet), 1062
- Chremsian**, under Mithridates, 1513
- modern, 2471
- originally Khurasanassa, 737
- Chert**, Egyptian weapons of, 462
- in pillow lava, 94, 95
- for tools, Mesopotamia, 513
- Chervozaitz**, Russian currency, 4971
- Chesapeake**, flight with Shannon, 4112
- Chess**, in 18th century Germany, 3565
- 14th cent., 3452
- introduction into Persia, 2313
- into Europe, 3452
- Middle Ages, 2888, 8440, 3452
- Scandinavian pieces, 2606
- Chessel Down**, Saxon jewelry, 2418
- Chesser**, origin of name, 1883
- Roman legion at, 2140
- the Rows, 2238, 2239
- Chesser**, Battle of (613), 2271
- Chesterfield**, Lord, Barbara Villiers his mistress, 4000
- Chesterton**, G. K., on craft guilds, 2920
- on heretics, 5016
- on mankind as artist, 2957
- portrait, 5017
- Chia Ch'ing**, Manchu emperor, 4655
- Chiang Kai-Shek**, Chinese nationalist, 4903
- army entering Tainan-fu, 4903
- becomes president of China, 4903
- Chia Tan**, Chinese traveller, 3514
- Chicago**, meat trade in, 4504
- National Convention at, 4721
- strikes in (1880), 4517
- Chiehén Itzá**, Maya ruins, 2581, 2592
- Maya temples, 2583, 2582, 2595
- Toltec style and occupation, 2590, 3377
- Chicherin**, Georges, 4951
- Russian foreign minister, 4966
- Chileaster**, Roman occupation, 2147
- Chickatin**, origin, 221
- traditional in India, 237
- Chien Lung**, Ming, 766
- Chien's Vase**, Minan, 4657
- Chien Lung**, bridge built by, 4657
- embellished Peking, plate 1650
- lacquer throne, 4649
- old by, 4650
- portrait, 4652
- recovers British embassy, 4276
- Chigi**, Sigismondo, received by Louis XIV, plate f.p. 3555
- Childbirth**, mortality from 18th cent., 5013
- Roman religious ceremonies at, 1739
- Childebert**, Frankish king, 2269
- Childeric**, Merovingian king, 2415
- Children**, in Babylonia, 580
- in Bolshevik Russia, 4976
- in 18th century England, 4244
- Germany, 3907, 3970, 3307
- exposure in Greece, 374
- in factories, 4220, 4301, 1404-05
- at Herculaneum, 418
- modern hospital ward, 5056
- sun-ray treatment, 5057
- in U.S.A. factories, 4498
- See also Infanileldo
- Chile**, civil war, 4831
- early culture remains, 2508
- European population, 4321
- great presidios, 4826
- first S. American railway, 4327
- liberation, 4277, 4323
- war against Peru and Bolivia, 4331
- Chilperic**, Merovingian king, 2269
- marriages, 2268-69
- Chilianwalla**, Battle of, 4461
- Chilwell**, munition factory at, 4801
- Chimaera**, Birsusan, bronze, 1175
- Chimpanzee**, compared with gorilla, 174
- intelligence, 171, 243
- least changed anthropoid, 174
- native territories, 171
- population, 171
- skill, capacity comparison, 171, 178
- Chima**, Persian chief, ruler, 3382
- China**, absorption of conquerors, 1005
- ancestor worship, 3507, 4845
- bases of primitive society, 238
- Boxer rising (1900), 4691, 4662, 4663
- British relations under Chien Lung, 4653
- trade development, 1026
- bronze known 4000 B.C., 635
- Buddhism introduced, 1501
- spread, 2400, 2551
- caste system, 238
- census figures, Manchu, 4640
- Chou dynasty, culture, 442-47, 2102
- rule, 1587
- unification under, 2000
- cities, growth, 238
- civilization, dawn, 238, 420, 441-47
- early, 2690, 2106, 2513
- compared with Egyptian, 464
- introduced into Japan, 2300
- threatened by West after Boxer rising, 4661
- civil strife as population reducer, 4516
- civil war (20th. cent.) 4902
- communications, early, 2552
- commercial entry, 16th cent., 4276
- confederacy of 'Five Leaders,' 443

China—*cont.*

- Consortium, 5002
- Constitutional reforms of Tzu Hsi, 4602
- the Contending States, 443
- culture: *see* Civilization, *above*, and Chinese Art, *etc.*
- democracy a failure in, 5080
- dowager empress: *see* Tzu Hsi
- early division of empire, 2128
- education, classical system K'ang Hsi preserves, 4051
- reforms of Tzu Hsi, 4602
- ejected from Korea, 4566
- emigration, U.S.A. against, 4501, 4665
- consequences, 4664
- emperors, white horses for, 2855
- European contacts, 16th cent., 4652
- incursions, 19th cent., 4656
- examination system, 4650, 4651
- abolished by Tzu Hsi, 4661
- famine, recurrence, 4646
- glacial deposits, 84
- Great Wall, 441, 443, 1588
- building of, 1587, 1981
- defences of, 2100
- Jade Gate, 2100, 2101
- Greeks, parallels and contrasts with, 1195-98
- Han dynasty, culture and life, 1701, 2008-2107
- under Hung Wu, 3513
- Japan, treaty with, (1922) 4880
- war with, 4421
- Jenghiz Khan's conquest, 2817, 2870
- camp, 2843
- Kublai Khan's court and empire, 2851-90
- life in time of Ancient Greece, 1195
- literate class, 1001
- under Manchu, 4045-66
- new power in, 3008
- medieval commerce, 2009-11
- Middle Ages, end of, 3123
- military organization, early, 2310
- under Ming Dynasty, 3505-25
- Mongol administration, 2833, 2851-90
- invasion of, 317, 411
- supremacy ended, 2000
- natural resources undeveloped, 444
- Orientalism, seat of, 1195
- over-population, 230, 4645
- Persian early intercourse, 2500
- plough, 310
- population density, 230, 4615
- Portuguese, early contact, 3366
- religion and philosophy: *see* Buddhism; Confucianism; Taoism
- republic proclaimed, 4666
- rice growing in, S. 238
- river-silt danger in, 446
- Roman empire compared with, 2101
- at time of, 1962
- trade routes, map plate *f.p.* 1962
- trade with, 1989-91, 2107, 2135
- seafaring, early, 465
- as seat of Orientalism, 1195
- secret societies, anti-Manchu, 4648
- rebelleions, 1797-1806, 4055
- social system, modern, 4645
- southern unrest under Manchu, 4665
- Sung dynasty (240-479), 2209, 2274
- (900-1127), culture, 2560-64
- T'ang dynasty, culture and life, 2360, 2543-59
- in 3rd. cent. B.C., map, 1582
- U.S.A. interest in, 4520
- at Washington Conference, 4889
- Western intercourse, early, 1991, 2107
- Westernisation by Tzu Hsi, 4661, 4662
- results since 1885, 4664
- women, status of, 378, 379
- Yin dynasty, 442, 445
- See also* Chou; Confucianism; Han; Kublai Khan; Manchu; Ming; Mongol; Sung; T'ang
- Chindaswind, Visigothic king, 2354
- Chinese, broad-head, 229
- burial superstitions, 2555
- in communist Russia, 4959
- Han dynasty cavalryman, 2310

Chinese—*cont.*

- in Malaya, 4026
- in Peru, 1341
- philosophy, 1996
- printing, early, 2556
- racial characteristics, 231, 308, 446
- seafaring of, 165
- social life: *see* China; and Han; Ming; Sung; T'ang
- in U.S.A., 4601, 4501
- varied physique, 147
- war skill, ancient, 2101
- Chinese Architecture, Confucian temples, 1221-23
- Manchu, 4657-59
- Ming, 3515
- Chinese Art, bronzes, Chou and Yin, 446-47
- Ming, 3523
- Buddhist influence, 2549-51, 2561, 3521
- enamel, 3524, 1650
- Han dynasty, 1701, 2008, 2102-05
- Hellenistic influence, 1501, 1502-4
- laquer, 3524, 1649
- Ming, 3514-21
- painting, Han, 2550, plate, *f.p.* 2553
- Ming, 3511, 3520-22
- T'ang and Sung dynasties, 2546, 2550, plate *f.p.* 2553, 2556, 2560-62
- porcelain, Manchu period, 4660
- Ming, 3518, plates *f.p.* 3518-19
- pottery, Han, 2008, 2102, 2105
- Ming, 3512, 3519
- Neolithic, 2335
- T'ang and Sung dynasties, 2552, 2554, 2558, 2559, 2563, plate *f.p.* 2552
- sculpture, Buddhist, 2549-50
- Han relics, 444, 1701
- T'ang and Sung dynasties, 2514, 2549, 2550, 2564
- sense of beauty, 1197
- T'ang and Sung, 2543-2561
- in Turkistan, 1592-04
- wood carving, 2564
- Ching-to Chen, porcelain made at, 3523
- Chinkai Ranza, mosque, 3789
- Chiggia, Battle of, Genoese defeat, 2915
- Chios, pirate stronghold, 3900
- Chilpobae Tatars, Tamerlane's conquest, 3121
- Chippendale, Thomas, chair styles, 4248
- vogue in Germany, 3073
- Chiswick Press, printing, 3197
- Chiswick House, Palladian style, 4032
- Chiton, or tunic, Greek, 986-87
- Chitor, fall of, 2902
- Rajput tower of victory, 3171
- Chiusi, tomb, wall painting, 1169
- Ch'iu Ying, reception of envoys, 3514
- Chivalry, age of, in Europe, 2971-2980
- crusading fairs, 2741
- institution, 3424
- three factors in complete form, 3424
- women under, 382, 3425
- Chlodwig, the Merovingian: *see* Clovis
- Chloroform, Simpson and, 5050
- Chlorine, bleaching, French discovery, 4288
- German poison gas, 4792, 4793
- Chlothar II (Lothaire), Frankish king, death, 2268-69
- Chocano, Santos, Peruvian poet, 4340
- Chocolate, introduced into Europe, 3442
- Chodowiecki, Daniel Nicolas, 3953, 3959
- drawings by, 3954, 3965, 3968-69, 3972, 3976-78, 4076
- paintings by, 3951-52, 3974, 3981, plate *f.p.* 3982
- Cholera, banished from England, 5058
- Koch and, 5051
- Choephore: *see* Libation Bearers
- Choerilus of Athens, drama, 1354
- Choiseul, Duc de, dismissal, 3015
- and French navy, 3909
- portrait, 3900
- Chollerford, Roman bridges, 2040
- Chelula, pyramid, 2590
- Chorus, Greek, bird dance, 1357
- function, 4040
- in satyr drama, 1354

- Choshu, Baron, fires on foreigners, 1335
- Choshu Clan, surrenders to, 4114
- Chosroes, of Armenia (c. 234), alliance with Rome, 2115
- Chosroes, of Armenia (c. 336), 2192
- Chosroes, Parthian monarch, and Trajan, 1967, 1970
- Chosroes I (Noshirwan), of Persia, 2316-15
- palace at Ctesiphon, 2315
- in Syria, 2366
- Chosroes II, of Persia, crowned, 2317
- deposition, 2274
- harem, 2314
- on horseback, 2273
- hunting, 2366
- invasion of the Empire, 2273
- Maurice I's aid of, 2272
- Chosroes, Cup of, 2317, 2318
- Choudhri, Punjab aristocracy, 3795
- Chou Dynasty, establishment of, 2099
- period of, 442-43, 2102
- rule and overthrow, 1587
- sacificial bowls of, 447
- Chremonidean War, 1671
- Christ: *see* Jesus Christ
- Christchurch, castle and priory, 2706
- Christian I, of Scandinavia, 3134
- Christian II, of Scandinavia, 3312
- portrait, 3313
- Christian IV, of Denmark, 3640, 3641
- visit to James I, 3711
- Christian, of Almut, 3637, 3638
- Christian, of Halberstadt, 3628, 3641
- and Elizabeth of Bohemia, 3639
- supports Frederick I, 3592
- Christian Art, Antioch chalice, 2177
- basilica, 2155, 2187
- casket of Proiecta, 2204
- catacomb paintings, 2172, 2175, 2179-80
- influence of Roman art, 1932, 1933
- narrative in, 1927
- origin of, 1931
- pagan invasion, 2201, 3246
- Renaissance blends, 3240-42
- Roman sarcophagi, 1933
- Christian Era, chronology, 1847
- Christianity, Akbar and, 3768
- ancient thought in, 3012
- and Anglo-Saxon laws, 2465
- Bentham's revolt against, 4280
- Bolshevik attack on, 4972
- in Britain, Latin medium, 328
- Chesteron's defenses, 5016
- in China, 14th cent., 3505
- Manchu, 4652-53
- Christ, power of belief in, 3012
- commercialised in Middle Ages, 3323, 3324
- Constantine the Great's recognition, 2127-28, 2189, 2636
- descent from Judaism, 812
- early attacks, 2179
- British, 2271, 2465
- converts, special position, 2177
- discussions, 2196
- efforts, 3253
- 1st-4th cents., 2172-89
- growth, 2187
- language, 1494
- philosophy, 2320, 2330
- rival religions, 2033-97
- and economics, 399
- emergence and establishment, 2173-2189
- Greek influence, 1501
- philosophy and, 2053, 2171
- religion's foreshadowing, 1386
- growth and influence in Rome, 3011
- Hellenisation of East, effect on, 1464
- individual emphasis, 3013
- Ireland's part in, 2974-85
- Japan closed to, 3604
- Jehangir and, 3771
- in Justinian Age, 2303
- Locke on the reasonableness of, 4050
- Marcus Aurelius and, 1909, 1973, 2181
- in Middle Ages, 3010-28
- and Mittraism, 2090-91
- Nestorianism, 3598-99
- obtrusion of other religions, 2189
- Oriental influence on, 1506
- orthodox belief in, 4805
- paganism and early, 1763, 2204, 2224

Christianity—cont.

- condemned by, 3253
- relation with, 2178
- and Platonism, 2007, 3321
- reason applied to theology, 3014
- recognition by Rome, 2320
- religion and life one, 3354
- Renaissance attitude, 3231, 3240, 3327
- revival of paganism, 3231, 3240, 3246
- rival religions, 2083-97
- Roman emperor and worship, 1878
- empire associated with, 2189
- strength in, 2175
- laws, connexion with, 2160
- Rome's decline attributed to, 2233
- under Sassanids, 2310
- and status of women, 377
- and Stoicism, 1905, 1907, 2082
- suppressed by Revolution, 4135
- triumph of, 2173-89
- and war, 4862
- words used derived from Rome, 2248
- See also Church; Church, Early; England; Church of; Greek Church; Luther; Papacy; Protestantism; Reformation; Roman Catholicism.
- Christian Science**, 4860
- attitude of churches toward, 4863
- Christians, Early**, 2177-89
- as worship alleged, 2178
- emperor worship refused, 1878
- first edict against, 2180
- Roman persecutions, 1878, 2188
- under Decius, 2115, 2186
- under Diocletian, 2125, 2187-88, 2310
- Domitian, 2182
- Iulian on, 2181
- Maxentius Aurelius, 1000, 1073, 2184
- Nero, 1857, 2181
- reason of, 1008
- Trajan's views, 2183
- Valerian's decrees against, 2177
- Christian Socialists**, work, 4406
- Christina**, of Sweden, 3500, 3601, 3602
- and Peace of Westphalia, 3508
- Christmas**, date due to Mithraism, 2001
- Chronicles**, Books of, descrip. of Solomon's temple, 818
- Chrysippus**, Stoic, 1404-05, 1904
- Chrysoloras**, Manuel, Greek teaching, 3220, 3221, 3320-21
- Chuang-tsz**, Taoist philosopher, 1222
- treatise and style of, 2518
- Chu Hsi**, work for Confucianism, 2508
- Church**, The, abuses, medieval, 3070, 3072, 3323
- bulwark against anarchy, 3026
- Charlemagne, head of, 2120
- corruption at time of Reformation, 3351
- and Darwin's theories, 4522
- decline, 15th cent., 3434
- in modern congregations, 4864
- degeneracy, medieval, 3070
- division at Renaissance, 3342
- as economic factor, 3800
- 14th cent. reform attempts, 3071
- French alliance with crown, 3698
- censorship, 4121
- under Louis XVIII, 4290
- quarrel with, 4154
- re-established by Napoleon, 4135
- revival under Louis XIV, 3805
- Revolutionary dealings, 4134, 4135
- influence of women in, 377
- law: see Canon Law
- the Living, in Russia, 4972
- Luther's teaching on invisible, 3345
- Marsiglio's reform attempts, 3071
- medieval society founded on, 3342
- state relations, 2480, 2656, 3023
- struggles against, 4128
- thought in, 3014-16
- paganism within, 2180, 3014, 3241
- and Papacy, 3063-3077
- power, medieval, 3410
- loss of, 3451
- protected against heretics, 3073
- relations with modern State, 3067
- Renaissance, pagan spirit, 3241

Church, The—cont.

- revolt against medieval, 3427
- and science, 49
- secular uses, medieval, 3451
- William of Ockham and, 3072
- and witchcraft, 3253, 3254
- Church, Early**, assemblies prohibited, 2187
- basilica us model, 2013
- communism in, 4078
- controversies on nature of Christ, 2320, 2330
- Greek language used, 2232
- growth and spread, 2319
- heresies in, 2330
- imperial splendour assumed, 2321
- in Roman Empire, 2173, 2180
- State union failure, 2330
- teachings and practices, 2173-75
- war of the creeds, 2329-43
- women's subordination, 2240
- Church Fathers**: see Fathers of the Church
- Churchill**, Winston, and the Agadir incident, 4580
- sends Naval Division to Antwerp, 4747
- Church Legislation** (1704) of Catherine the Great, 3941
- Chu**, origin of word, 2453
- Chu Yuan-chang**: see Huang Wu
- Chu Yang**, legendary Chinese king, 414
- Cicero**, Marcus Tullius, 1770-81, 1838, 1888-89
- on acting, 1830
- bust, 3779
- Catharine conspiracy suppressed, 1770
- On the Commonwealth, 1705, 2250
- On Duties, value of treatise, 1703
- on elections, 1821
- first lessons in philosophy, 1000
- on funeral orations, 1591
- medieval schools and, 3017
- oratory, modern influence of, 2247
- Philippics, 1790
- proscription of, 1701
- religion of, 1901
- as senator, 1778, 1816
- slave secretary, 1825
- Stoic teaching, 1006
- studies under Posidonius, 1905
- on tax-farming, 1820
- on wild beast hunts, 1820
- Ciceronian Age**, Latin literature in, 1888
- social conditions, 1811
- Cid**, Campeador, The, 2617
- Cilicia**, formed kingdom of Arzawa, 728
- Mycenae intercourse with, 787
- reduced by Alexander the Great, 1407
- Roman province, 1776, 1777
- timber in, 407
- Cilician Gates**, Alexander at, 1407, 1435
- Cilicians**, allies of Mithridates, 701
- pirates, 3802
- Cilicia Tracheia**, Arzawa in, 734
- Cimbr**, in Italy, 1770, 2212
- Cimbrin Forest**, in antiquity, 1152
- Cimmerians**, appearance, map, 371
- Lydia ruled, 855
- origin, 1127
- Phrygia conquered, 800
- See also Medes
- Cimon**, son of Miltiades, 1230-32
- Agora walls extended, 1269
- aid of Sparta, 1234
- ostracism, 1231
- recall of, 1235
- Cinna**, consul, 1773
- Cinna**, Helvius, poet, Greek influence on, 1888
- Cinque Ports**, privilage privileges, 3802
- Ciphering**, primitive methods, 208
- See also Numbers
- Circe**, and Odysseus, 850
- Circis**, Archimedes on measurement of, 2090
- Euclid on squaring, 2063
- Circumcision**, practised by Australian aborigines, 210
- Circus**, Roman, 2053
- See also Chariot Race; Gladiators

- Cirencester**, Roman town, 2147
- wool guilds' meeting place, 3184
- Cire-pardine**, method described, 201
- Cirta**: see Constantine, Algeria
- Cisalpinus Gaul**, Roman province, 1705
- Cisalpinus Republic**, 4093, 4097
- Cissbury Ring**, British camp, 17
- Cistercians**, 2280, 3419
- Citratakhama**, satrap, 1090
- City of God**, The, by St. Augustine, 2325, 3021-22
- influence on political thought, 3021, 3023
- City States**, Greek, 1045, 1107-24
- Tahiti, 2751
- See also Greek City States
- Cividale del Friuli**, Lombard chapel, 2415, 2431
- Civilians**, modern war on, 4815
- Civitas**, Roman officer, revolt, 1719, 1859
- Civilization**, achievements, 5007
- Alex. the Gt.'s effect on, 1448, 1487
- alphabet's importance, 1061-80
- centre in early ages, 1983
- cradles of the civilized, map, 423
- culture complex theory, 2500
- dawn of, grassland and forest, 436
- development, views of, 2600
- diffusionist theory, 2600
- effect of exchange of knowledge, 3181
- environment theory, 2600
- European expansion, 3rd cent. B.C., 1022
- food production and, 232, 437, 471
- gold influence on, 350, 361
- Greek influence on, 1501
- Mesopotamian cradle of early, 511
- Mesopotamian world debt to, 945-82
- modern compared with Roman, 2028
- printing, effect on, 3181, 3104-95
- probable age of, 77
- population problem and, 437
- post-war attacks on, 5070
- rise of ordered, 437-72
- table of early, 415
- theocratic systems in early, 472
- Viking influence on, 2528
- See also Man; Society; under individual cultures, e.g. Arabia; Chinese; Greek; Roman, etc., and under general headings Architecture; Art; Science, etc.
- Civil Law**, clergy exempt from, 2322
- Roman code, 2157
- Civil Rights**, absence, pre-Revolution France, 4120
- Civil Rights Act** (1860), in U.S.A., 4490
- Civil Rights Acts** (1875), 4495
- Civil Service**, of Louis XIV, 3857
- in U.S.A., reform, 4510
- Civil War** (American): see American Civil War
- Civil War** (in England), 3580
- Charles I and Puritans, 3720-22
- Cromwell and, 387, 3723-27
- economic results, 381
- reasons for, 391-2
- soldiers of, 3728
- Civitale**, Pope Leo IX captured at, 2615
- Italian defeat at, 2505
- Civita Vecchia**, French troops at, 4370
- Claas**, analogy with Latin gens, 1611
- in ancient Rome, 1809
- Japanese, renunciation, 4111
- Clapham**, J. H., on early railways, 4356
- economic historian, 14
- Clapham Junction** (Ypres), 4811
- Clarendon**, Edward Hyde, 1st earl, 10
- on fear of Cromwell, 3732
- Clark**, Champ, U.S. Democrat leader, 4713, 4720
- Clarke**, Samuel, British divine, 4052
- Clarkson**, Thomas, and the Anti-Slavery Society, 1492, 4590
- Class Distinction**, in primitive societies, 210, 388-9
- in Rome, 1706, 1707
- Classicism** in literature and art, 4032-47
- revolt against, 4201
- Classics**, early Christian objection, 3013
- value in education, 16
- Classis**, walls and gate, 2231
- Class War**, a fallacy, 5074
- Marx and, 4080
- meeting in Trafalgar square, 5073

Claudian, poet, 1898, 1999, 2001
 Claudii, patrician gens, 1643-46
 Claudii, plebeian gens, 1643
 Claudio Caelio, portrait of Carlos II, 3765
 Claudius I, Caesar, 1854
 —conquest of Britain, 1854, 1985
 —Empire developed, 1875
 —harbour at Ostia, 2049, 2050
 —tetrarchs, 2123
 —statue, 1853
 —wives of, 1853, 3987
 Claudius II (Gothicus), 2110, 2210
 Claudius Nero, defeated Hasdrubal, 1591
 Clausewitz, on war, 4785, 4792
 Clauserhouse: see Dundee, Viscount
 Clay, Babylonian, for household vessels, 536
 —properties, 80
 —Sickles of Mesopotamia, 513
 —for writing tablets, 518
 Clayton Anti-Trust Act, 4515, 4720-27
 Cleander, tyrant of Asia, 1104
 Cleantes, hymn to Zeus, 1905
 —Stoic teaching, 1454-65
 Cleisthenes, 389, 1093
 —organization and reforms, 1120
 Cleomecean, Georges, in Big Four, 4877
 —on Poland, 3610
 —signs Peace Treaty, 4875
 Clemens the Scot, at Charlemagne's court, 2689
 Clement II, pope, 2505, 2773
 Clement III, pope, 2649-50
 Clement V, pope, 2905
 —condemnation of Knights Templars, 3005-60
 —France's tool, 3064-65
 —mission to China, 3503
 Clement VI, pope, researches on Black Death, 3105
 Clement VII, anti-pope, 3008
 Clement VII, pope, 3009, 3235
 —Charles V and, 3310-11
 —portrait by Vasari, 3335
 Clement XIV, pope, suppresses Jesuits, 3215
 Clement, S., celebration of mass, 2453
 Clement, of Alexandria, Christian philosophy, 2171
 —on early martyrs, 2185
 —persecution of, 2186
 Clement, Epistle of, 2483
 Clement, Joseph, inventor, 4358
 Cleobis and Biton, statues 1093, 1327
 Cleomedes, retraction theories, 207
 Cleomenes, Spartan king, expulsion of Peloponnesians, 1093
 Cleomenes III, Spartan king, refuge in Egypt, 1077
 —war with Achaean League, 1075
 Cleomenes, s. of Leonidas, 1581
 Cleon, Athenian leader, death, 1242
 —judgment on Mytilene, 1241
 Cleopatra, q. of Egypt, death, 1793
 —and Julius Caesar 1786-87
 —and Mark Antony, 1791-93, 1830
 —portraits, 367, 1787, 1789
 Cleopatra, d. of Antiochus III, marriage to Ptolemy V, 1701
 Cleopatra, Macedonian princess, 1124
 Cleostratus of Tenedos, astronomical teaching, 1470
 Clepsidra, or water-clock, 977
 Clergy, civil constitution of, 4135
 —and civil law, 2322
 —in 18th century England, 4203, 4220
 —English, early 19th century, 4281
 —French pre-Revolution, 4114
 —German, 18th cent. costume, 3975
 —under Louis XIV, 3853, 3859
 —marriage law, Norman, 2732
 —medieval country parsonage, 3422
 —ignorance, 3021
 —in minor orders, 3421, 3423
 —priestly priests, 3422
 —political advantages, 3023
 —secular, 3421, 3423
 —12th cent., 2733
 —post-war diminution, 4864
 —social status under Tudors, 3499
 See also Abbot; Bishop; Monk, etc., and under Monastic orders
 Clerical Disabilities Act, terms, 3000

Clericist Laicos, Bull of Boniface VIII, 2332-33, 3063
 Clerk-Maxwell, James, electrical researches, 4696, 1702
 Clerks, medieval, 3423
 —ecclesiastical, costume, 2429
 Clermont, Congress of, 1st Crusade launched, 2651
 Cleruchy, 1394
 Cleveland, Duchess of: see Castlemaine
 Cleveland, Stephen Grover, president U.S.A., 4512
 Clientage, Roman system, 1646
 Climate, in archaeology, 30
 —British, changes, 153
 —clothing in relation to, 290
 —cycles of, 226
 —as economic factor, 378, 387
 —of Egypt, 482
 —geographical distrib. mixed, 138
 —influence on history, 331-48
 —intertropical Africa, drawbacks, 233
 —man's dependence upon, 333
 —rainfall in Equatorial belt, 335-6
 —zonal map and diagram, 332, 334
 Climatus, early Isht., 112, 113
 Clio, muse of, 1391
 Clithere, feudal land divisions, 2663
 Clitus, Greek artist, work of, 938, 1041
 Clitus, friend of Alexander, 1124, 1431
 Clive, Robert, nt Arcot, 3807
 —as governor of Bengal, 4595
 —imperial work of, 411
 —Indian campaigns, 3904
 —portrait, 3896
 —victory at Plassey, 3904
 —work in Bengal, 4413
 Clodia, character, 1828
 Clodius (Publius Claudius), 1781-82
 —leader of riots, 1824
 —patrician rank renounced, 1643
 Cloister and the Hearth, med. life depicted in, 3440
 Clonmense Abbey, 2681
 Clontarf, Battle of, 2528
 Cloth, of New Stone Age, 268
 Cloth industry, medieval, 2921-26
 —English, 2903, 2924
 —Florence, 2924-25
 —Tudor, 3484
 See also Wool
 Clothing, in Babylonian, 534, 541
 —climatic conditions and, 289
 —virtuous advantages, 289, 296
 —origin, 189, 289, 360
 —primitive cultures in relation to, 290
 —stone age, plates 201-02, 205-06
 Clouet, François, portraits by, 3301, 3461-62, 3464, 3477
 Clovis I, Frankish king, 2260, 2268
 —baptism, 2260, 2486
 —conquests in Gaul, 2214, 2230
 Clown, medieval prototype, 3452
 Club, curved, of Egyptian hunter, 183
 —elephant's tusk bone, 245
 —most primitive weapon, 376, 277
 —predynastic warrior, 185
 Club, coffee house the precursor, 4243
 —English, 18th century, 4231
 —political, French Revolution, 4083, 4141, 4142
 Clunians, organization, 3118
 Cluny, abbey, 2279, 3418
 Clyde, early steamers on, 4353, 4354
 Clytemnestra, Agamemnon slain, 1350
 —in command at Mycenae, 849
 —punished, 850
 —slain by Orestes, 1350
 Clytie, bust, 1926
 Cnidus, victory of, 1218
 Cnosus, 599-609, 758-62
 —cave sanctuaries at, 600
 —collapse of civilization, 850
 —Egyptian finds at, 757-8
 —girl bull-jumper, 9, 769
 —during Hittite Empire, 715
 —houses, 602, 830
 —Neolithic settlements at, 469
 —stratum, 504
 —palace of Minos, 599-601, 603-05, 759-62
 —historical strata, 26, 27
 —pottery from, plate f.p. 609
 —rebuilding, 602
 —scans from, 601, 608

Cnosus—cont.
 —throne room, 762, 767
 —water main from, 599
 Coach, plate f.p. 1155
 —18th century English, 4214
 —Germany, 3978
 —medieval, 3452-53
 Coal, Cumbrian period, 90
 —cannel, 102
 —in Chile, 4331
 —in Colorado, 4504
 —early use, 3456
 —formation, 103, 105
 —Great War and, 4694
 —industrial development, 4220
 —in Lancashire, 4235
 —in Roman times, 1094
 Coalbrookdale, ironwork, 4342, 1313
 —in 1758, 4218
 Coalfields, British distribution, 78
 —preservation, 104
 Coal forests, amphibia of, 14, 104
 Coal industry, British, post-war, 5070
 —strikes, 5075
 —unemployment in, 5084
 Coal mines, labour in U.S.A., 4498
 —women and children in, 345, 1407
 Coat armour, 2980
 Coats of Arms, differences in, 2982
 —medieval, 2980
 Cobalt, deposition, 107
 Cobbett, W., on National Debt, 4284
 —portrait, 4282
 Cobden, Richard, 4431, 4476
 Cobden-Sanderson, T. J., printing, 3190
 Coblenz, Marlborough at, 3757
 Cook, first Egyptian, drawing, 633
 Cookburn, Admiral, and Napoleon, 4198
 Cock-fighting, Hogarth's Cockpit, 4226
 Cocoon, Mexican tribe, 3877
 Code Napoleon, 4194
 Codrington, Sir E., at Navarino, 1264
 Coele-Syria, under Antiochus III, 1701
 Coen, Dutch governor-general, 3546
 Coeur, Jacques, house, 3437
 Coffee, drying beans, 3430
 —introduction into Europe, 3442
 —parties, 3945
 Coffee house, 18th cent. 3044, 4241, 4243
 Coffin, from tomb of Inna, 701
 Coffin, Babylonian, 534
 —Egyptian, 705, 1017
 Cohorns, Baren van, 3718
 Coiffure, Babylonian, 335
 —Egyptian dancer, 557
 —18th century, English, 4231
 —German, 3977
 —French, 4113
 Coif, pagan priest, 2459
 Coinage, British, 7523
 —Carthaginian, 1664
 —English, early, 2124, 2197, 2708
 —Gaulish, 7525
 —Graeco-Indian, 1491
 —Greek, 7th-6th cents., 1115
 —5th cent., 1261, 1238, 1336
 —4th cent., 1403, 1110
 —3rd cent., 1415
 —non Athenian, 1549
 —tetradrachm (owl), 1550
 —Hellenist, 1191
 —Indian, early, 1495
 —Latin kingdom, 2808
 —Macedonian, 1525
 —Mogul, 3791
 —rings of, 31
 —Roman, 29, 1612
 —from S. India, 1492
 Coins, in Thirty Years' War, 3635
 Coke, Sir E., 3633, 3671
 —on Magna Carta, 3675
 —opposition to king, 3660
 —on witchcraft, 3763
 Coke, Roger, on merchants, 4428
 Colbert, J. B., 3845, 3946, 3852
 —battleship, 3745
 —colonial policy, 3850
 —financial reforms, 3737, 3845
 —and Gobelin, 3849
 —and printers, 3843
 Colbert, J. B. (son), and French navy, 3743, 3749
 Colchester, abbey, dissolved, 3197
 —castle, 2706
 —Romans at, 1854, 2140

- Cole, Rev. J., with Wesley, 2205
 Coleridge, S. T., on steampans, 4355
 Collet, John, Immanism, 3336
 Colfax, Schuyler, and *Crédit Mobilier*, 1510
 Colign, Alcibi and, 2685
 Colibert, Nicolas, J. M. Roland, 1171
 Colie, seasonal, Huxham's researches, 5011
 Collign, Admiral, 3163-66
 ——portrait, 3164
 Colligny Calendar, Celtic, 1529
 Collège de France, founding, 3336
 Colloani, Bartolomeo, 2211, 3030
 Colley, Sir George, at Majidba, 1560
 Colline Gato, battle, 1773, 1775
 Collingwood, Admiral, at Trafalgar, 1100
 Collins, Anthony, follower of Locke, 1050
 Collins, W., Odes, 4307
 Collet d'Herbois, signature, 1144
 Colman, S., Irish bp., 2983
 Cologne, British occupation, 4879
 ——cathedral, 2303
 ——Roman bridge, 2039-10
 Coloman, of Hungary, 3152
 Colombia, civil wars, 4331
 ——early man in, 215
 ——independence, 4277
 ——statistical account (1822), 4326
 ——U.S.A. and, 395, 4731
 Colombleros, battle, 1385
 Colonial Conferences, object, 4024
 Colonisation, in Argentina, 4328
 ——British, 1388, 3517, 4261, 4698
 ——Collet's policy, 3559
 ——Greek, 353, 1388, 1536
 ——Delphic Oracle's influence, 1374
 ——Illite, 799
 ——Japanese, 4423
 ——in 19th century, 4686
 ——Roman, 1388, 2053
 ——*See also* British Empire
 Colonna, family, ancestry, 2772
 ——in Rome, 2777
 Colonna, Sciarra, and Bonifacio VIII, 3094
 Colonna, Vittoria, 3248, 3249
 Colorado, admitted to Union, 4507
 ——Civil Palace, Pueblo, 2572
 ——coal in, 4501
 ——gold and silver in, 4502
 Colosseum, Rome, 2020, 2031, 2032, 2054-55, 2056
 Colossi, of Memnon, 765
 ——of Ramesses II, 765
 Colour problem: *see* Negro Problem
 Colstree, Captain, buccancer, 3813
 Columbia, S., cell, 2077
 ——life, 2076, 2098
 ——poem, 2076
 Columban, S., Irish missionary, 2679, 2680
 ——and Easter, 2683
 Columbia, S. C., after civil war, 4489
 Columbia College, N.Y., foundation, 4017
 Columbia river, lumbering on, 4506
 Columbus, Christopher, 304, 3146
 ——discoveries, 410, 3145, 3532
 ——and John II of Portugal, 3531
 ——voyages, map, 3526
 Columella, on agriculture, 1805
 Column, in Greek architecture, 1308
 Comacina, island, builders in, 2442
 Co-macinas, meaning, 2412
 Combarellos, Les, drawing of ox, 258
 Combe Capelle, skulls from, 209
 Combination Act (1790), repeal, 4070
 ——strike under, 4668
 Comedy, Roman influence, 2247
 ——*See also* Greek Drama, etc.
 Comestor, Petrus, and printing, 3101
 Comst, S.S., early steamer, 4353
 Comitatus, 2077
 Comitia, Assemblies in Rome, 1794-96
 ——balloting in, 1824
 Commander Islands, 2568
 Commander of the Faithful, 2788
 Commores, bankers and, 1552
 ——development, 3492
 ——dilettantes, 1553
 ——in Egypt, 1636
 ——Hunsatic League and, 3040
 Commerce—*cont.*
 ——medieval, 2897-2926
 ——Mediterranean, map 1530, 1531-53
 ——merchant at work, 1291
 ——money basis, 1512
 ——Mongols and, 2011
 ——regulations, ancient, 1510
 ——in Roman times, 1987-91, 2129-30
 ——in Tudor Period, 3486, 3490-91
 ——*See also* Trade
 Committee of Public Safety, 4091, 4177
 ——in session, 1115
 ——signature, 1114
 ——in Vienna, 1308
 Commodus, emperor, 1975-76
 ——and Eastern cults, 2087, 2090
 ——as Hercules, 1978
 ——portraits, 1926, 1973
 Common field, medieval system: *see* Open field
 Common Prayer, Book of, Puritan dislike, 3719
 Commonus, House of, 391, 393, 3057
 ——Charles I in, 3074
 ——Cromwell dismissing, 3733
 ——on Dunbar medal, 3729
 ——on Great Seal of Commonwealth, 3732
 ——knights of shire in, 4429
 ——Long Parliament medal, 3075
 ——after Reform Bill, 4432
 ——Speaker's chair, 3679
 ——*See also* Parliament
 Commonwealth, 3704, 4430
 ——Great Seal, 3732
 Commune, French, formation (1789) 4079
 Commune, Italian, 2751-52, 2757-58
 ——Frederick II and, 2701
 ——government, 2768, 2704-65
 ——Jedoth and, 2762
 Communications, revolution in, 4607
 Communism, compared with socialism 4078
 ——democracy's enemy, 4895
 ——earliest phases, 368-9
 ——meeting in Trafalgar Square, 5073
 ——Socialism, and World Revolution, 4077-94
 Communist League, formation, 4084
 Communist Party, Russian constituents, 5077
 Communals, comparisons, 1047, 2182
 Como, Lake, lake dwellings, 613
 Comonachus, meaning, 2412
 Compass, Marinor's, invention, 1100, 3516
 Compitalia, festival, 1742, 1748
 Composite style, in arch, Roman use of, 1916, 1910
 Compton Wynnyates, 3493
 Compulsory Service, in Dominions, 4024
 Comte, Auguste, sociology, 4533, 6050
 Comneros, revolt of (1619), 3677
 Conan II, duke of Brittany, 2010
 Concert of Europe, meaning, 4553: *see also* Europe
 Concrete, Roman use, 2031, 2049
 ——20th cent. use, 5035
 Coneubinago, in Babylonia, 612
 Byzantine law, 2603
 Condé, Prince of, at Drunx, 3403
 ——at Jurnae, 3404
 Condé, Prince of (the Great), exiled in Spain, 3000
 ——at Roeroy, 3597, 3654
 Condillac, E. B. de, philosophy, 4002
 Condorcet, Marquis de, and status of women, 383
 Condottieri, in Thirty Years' War, 3014
 Conferences, in diplomacy, 4880
 Confession, made obligatory, 3070
 ——penitent and priest, 3070
 Confucianism, breakdown under Westernisation, 4061
 ——Canonical Books, 1224
 ——Cantonese break away from, 4666
 ——evolution under Seng thinkers, 2590, 2592
 ——influence of printing on, 2557, 2560
 ——under Ming Dynasty, 3507
 ——preserved by Maoists, 4649
 ——sacrifices in, 1224, 1225
 ——sacrificial vessels, 1226
 ——teaching, 1224
 Confucius, 444, 1083, 1223
 ——opinions, 472
 ——teaching, 1108, 1221
 ——temple, 1221
 ——tomb, 1220
 ——works destroyed, 1587
 Conglomerates, Penulka, 104
 Congo, pygms from, 336
 ——rain forest, 336-37
 Conifers, European areas, map, 343
 Congress (U.S.A.), Wilson speaking to, 1724
 ——*See also* United States of America
 Conjuring, tricks of Hero of Alexandria, 2680, 2679
 Connard, Philip, destroyers putting to sea, plate f.p. 4773
 Connecticut, settlement, 1607-08
 Conon, Athenian admiral, 1247-48
 Conrad I, emperor, 2100, 2149
 Conrad II, emperor 2501
 ——Milan and, 2753
 Conrad III, emperor, 2057
 ——a crusader, 2060
 Conrad IV, emperor, 2821-25
 Conrad, s. of Henry IV, rebels, 2650
 Conrad, of Carinthia, supports Conrad I, 2504
 Conrad of Montferrat, 2744, 2780
 Conrad the Red, of Lotharingia, 2500
 Conrad, Joseph, 6017, 5618
 Conrad, E. F., burgomaster of Danzig, 3076
 Conradin, 2825, 2815
 Conscience, idea revived, 3315, 3310
 ——liberty of, 1188, 3348
 ——*see also* Freedom
 Consciousness, nature of, 4531
 Conscientious Objector, 4862
 Conscriptio, 1090-91
 ——in Great Britain, 4762
 ——in Japan, 4417
 Conservatism, 4155
 Consortium, Chinese, 5002
 Constable John, Dedham Mill, 1296
 Constance, wife of Henry VI, 2706
 ——crown, 2338
 ——death, 2746
 ——and Sicily, 2705, 2746-46
 Constanco, cathedral, 3667
 Constances, Council of, 3067, 3136
 ——decisions, 3343
 ——Great Schism ended, 3008
 ——Huss condemned, 3678
 ——monastic reforms, 2285
 ——proceedings, 3136, 3341
 Constanco, Treaty of (1183), 2738
 Constant I, emperor, 2192-93
 ——portrait, 2193
 Constant II, emperor, 2350, 2352-53
 ——navy strengthened, 2620
 ——religious edict, 2343
 ——Rome despoiled, 2708
 Constant, Benjamin, 4290
 Constantino, Algeria, vladut, 2030
 Constantine I (the Great), 2127, 2180
 ——basilica founded, 2185
 ——Christianity recognized, 2127-28, 2189, 2332, 2630
 ——Church headship of, 2482
 ——conversion, 2180, 2320
 ——death, 2128, 2101
 ——Donation of, 2481, 2487, 3018, 3452
 ——edict of Milan issued, 2319-20
 ——Empire under, 407, 2191, 2617
 ——family losses, 2180
 ——letter to Shapur, 2310
 ——marriage, 2126
 ——at Nicæan Council, 2334
 ——sons, 2193
 ——Troy and, 807
 ——vision of the Cross, 2120, 2320
 Constantine II, emperor, 2192
 ——portrait, 2193
 Constantius III, 2201-02
 Constantine IV, Paganatus, 2350, 2353
 ——and Monophysites, 2343
 Constantine V, Copronymus, 2113
 Constantine VI, emperor, 2414
 ——imprisoned and blinded, 2624
 Constantius VII, Porphyrogenitus, 2409
 ——ceremonies of, 2018, 2022
 ——on Slavs, 2477, 2479
 Constantine VIII, 2511-12
 Constantine X, Duca, 251

Constantine

Costume

Constantine XIII, slain, 3125
Constantine, king of Greece, 1737
—abedication, 1775
—second, 1885
—and Central Powers, 1769
—dismisses Venizelos, 1761
Constantine I, Arch of, 2223
—clerk taken from other sources, 1928, 1929, 1975
Constantine Monomachus, husband of Empress Zoe, 1511
Constantinople, 2287-2305
—Atmelian, 2294, 2295, 2633
—baths, 2632-33
—bishopric, 2340
—churches, 2291, 2301, 2610
—Crusaders sack, 2030
—fall (1453), 409, 3033, 3234
—foundation, 407, 2128, 2280
—Hippodrome, 2022, 2294, 2632, 2633
—bronze horses, 2296
—obelisk, 2298
—housing in, 2030
—imperial capital, 2127-28, 2211, 2291, 2290
—under Justinian, 2287-2305
—Latin Empire (1205-61): *see* Latin Empire of Romania
—Monastery of St. Sophia, 2627
—palaces, 2292, 2293, 2291, 2623
—Palace of Waters, 2400, 2302
—plan (c. 113), 2289 (1122), 3125
—Russian attack 2636
—designs on, 4373
—S. Sofia, 2298, 2300, 2031, 2040
—gallery, 2635
—interior, 2300
—slopes, 2357, 2635-30
—Slav attacks, 2477
—Turkish conquest, 410, 3125, 3527, 3820
—university, 2031
—Vikings attack, 2521
—walls, 1010, 2290, 2292
—water supply, 2633
—*See also* Byzantium
Constantinople, Council of (381), 2334-35
—(653), 2341
—(880), 2343
—(753), 2113-14
Constantinople, Synod of (867), 2425
Constantius I, Ulpianus, 2122, 2124, 2125
—in Britain, 2125, 2128
—death, 2126
Constantius II, 2102
—and Christians, 2125, 2128, 2291
—portrait, 2101
Constantius III, 2203-04
—marriage, 2203-04
Constitutional Assembly, 4091
—abolishes tariffs, 4119
—Russian (1918), 4055
Constitution, French, 4132
—Japanese, 4120
—Roman, 1795, 2250: *see also* Roman Law
Consualia, festival, 1713
Consul, in Italian communes, 2757-58
—in Rome, 1032, 1715, 1803
Consulate (French), 4133
—formation, 4180
—Sleyis and, 4150
Consumption, modern treatment, 5038
Census, a spirit, 1736
—festivals, 1743-14
Contado, Italian, annexation, 2759
Contarini, Cardinal, and Jesuits, 3683
Couth, House of, 2772
Couti, Princess de, salon, 383
Couti Guidi, family, power in Italy, 2759
Continental Congress at Philadelphia, 1031
Continental system, 4102, 4104
Contract, Law of, 2163
Contra Revolution (1791), satire, 4170
Conubium, in Roman law, 1048, 1051
Convention, French, 4037
—reforms, 4132
Convocation, 3608
Convoy, U.S., in Great War, 4856
Cook, James, 4202, 4698
—exploration, 411, 4212, 4507
Cook, John, buccancer, 3816
Cook, W. E., electric telegraph, 4698

Cooking, 15th cent., 3432
—primitive, 286
—range in temple U.S. 531
Coolidge, Calvin, U.S. President, 4895
Cooper, Femimore, and American literature, 4313
Cooper, Samuel, Cromwell by, 3725
Co-operation, effect on capitalism, 5002
—Owen's theory, 4941
Coote, Sir Eyre, in India, 3005
—at Porto Novo, 1115
Cogan, Hondurans, after, 2592
—death god from, 2591
—Maya city, 2590
—monolith, 2578, 2584
Copenhagen, Treaty of (1660), 3002
Copernicus, Nicolaus, 49, 56
—Pythagoras and, 1174
—theories, 49, 3340, 3452, 3521
Copley, J. S., American artist, 4019
—portrait of S. Adams, 4027
Copper, Actolia, mining in, 995
—in California, 4604
—in Cyprus, 610
—deposition, 107
—discovery, 553, 634
—in early Minoan I, 596
—in Egypt, 489
—Egyptian use, 422, 462, 184, 492, 553
—statuary, 478
—history and early use, 219, 634
—in Sinai Peninsula, 553, 680
—for tools, Tell-el-'Obeld, 513
—for weapons, Mesopotamin, 520
Copper Age, in Cyprus, 610
—in Italy, 613
—in Sicily, 611
—See also Bronze Age; Chalcolithic Era
Coppermine, R., metallic deposits, 2509
Coptic Art, 1030, 2339
Coptic Church, 3404
—doctrines, 2342
—in Egypt, 2339
Coptics, hermitage, 2276
—vestments, 2339
Coptos, statues from, 500
Coral, Cambrian period, 94
—Devonian period, 101
—fossil, 97
—Iced Sea, 458
Corbie, captured by Werth, 3633
Corbridge-on-Tyne, 2111
—Roman tombs, 2010
Corbusier, Le, concrete houses, 6035
Coreyro, friendship with Athens, 1293
—conflict with Corinth, 1239, 1389
—revolution, character of, 1241
Cordeliers Club, flag, 4163
Córdoba, 3277
—Castilians capture, 2827
—leather, 3282
—mosque, 3269-74, plate f.p. 3274
—scientific centre, 3290
—wines, 3281
Córdoba, Gonsalvo da, tactics, 2952
—takes Naples, 3399
Córdova, Khalife of, fall, 2017
Cord ware, in Stone Age, Japan, 2382
Corte, Bishop, mission work, 3692
Cortium, success for Cassa, 1785
Cortis, Mycenae settlement, 787
Cortis, captured by Italy (1923), 4804
Cortina, capture (146 a.c.), 1911
—citadel hill, 1030, 1112
—colonies, 1389
—figure representing, 1546
—in Greek history, 1239, 1247-48, 1071
—individuality, 1255
—road to, 774
—Roman destruction, 1682
—in S. Paul's time, 1682
—settlement, 983
—temple of Apollo, 1039
Corinthian Order, description, 1308
—Roman use of, 1975, 1916
Corinthians, 18th century society, 4212
Cornu, Sebastian, Napoleon III, 4371
Cormorant, used for fishing, 283, 281
Corn, in ancient Egypt, carrying, 710
—preparing, 487, 488
—rubbing, 488, 562
—storing, 463, 489
—tasting, 711
—winnowing, 488
—in Argentina, 4327

Corn—*cont.*
—exportation, early, 1543
—grinding in medieval times, 2672
—limits of growth (m.p.), 173
—Mesopotamia, ancient, 568
—in Roman Empire, 2002, 2001
—sources, 1994, 1995-6
—in U.S.A., 4503
Cornelle, Pierre, 3869, 4042
—at Hôtel de Rambouillet, 3991
—pensioner, 3861
Cornelia, mother of the Gracchi, 1831
Cornet, Etruscan tomb, 364
1168-69
Corn Laws, repeal, 1431, 1475-76
Cornwall, annexed to Cornwall, 2451
—Hancutt, in, 8055
—language, 329, 2450
—Phoenicians in, 1010
Cornwallis, Marquess, in India, 1446, 1450
—portrait, 3909
Coronation, Roman, 2760
—survival of ancient ritual, 355
Coronel, Battle of, 4836, 1838
Corot, J. B. C., The Flood, 5021
—genius of, 5022
Corporation in U.S.A., 4500
Corpus Franciscanum, formation, 3649
Corpus Juris Civilis, of Justinian, 1457-58, 2161
See also Civil Law
Correggio (Lieto), 3221, 3222
Corsairs: see Pirates
Corsica, British evacuate, 4182
—Pithecans in, 1091, 1105
—megalthic remains, 614
—Napoleon and, 4170
—Phoenicians in, 1001
—Romans in, 1578
Cort, Henry, and Iron Industry, 43 13
Cortenaova, Battle of, 2824
Cortes (Spanish parliament), 3013, 3677
—in Cadiz, 4203
Cortés, Hernando, in Mexico, 3304, 3370, 3873
Corunna, battle of, 4103
—Tower of Hercules, 2050
Corupedum, Battle of, 1414
Corvée, in Egypt, 500
—in Mesopotamia, 526
—in the Middle Ages, 2071
Corvus, M. Valerius, dictator, 1418
Corythosaurus, bones in rock, 129
Cosimo, Piero di, Ferrucci by, 3205
Cosmè, sculpture and mosaic, 2778
Cosmè Reaso, 1905
Cosmogony, Assyrian beliefs, 679-80
—Greek ideas, 47, 48-9, 1180, 2069, 2081
Cosmology, modern theories, 52-77, 5005-06
Cossacks, how used by, 281
—Stroganov ally with, 3924
—under Turkish rule, 3752
—war against Bolsheviks, 4062
Cossus, A. Cornelius, victory, 1601
Costa Rica, 4326
—archaeology, 2500
Costa, Lourens, 1, 3183, 3184
Costume, Assyrian, 674
—Babylonian, 571
—Burgundian, 3439
—Byzantine under Justinian, 2300, 2303
—Carolingian, 2421, 3523, 2434, 2437
—Cathaginian, 7617, 1618
—Egyptian dancers, 557
—high priest, 475
—lady, 553
—Middle Kingdom, 550-2
—under XIX Dynasty, 678
—El-Amarna, 3552, 3563, 3561, 3506
—English 18th century, 2431-33
—Florentine and Milanese, 3907
—French Directory, 1148, 1149, 4150
—Germany, 18th century, 3975-77
—Greek women, 986, 1283, 1288
—Hercic Age, 813
—Lombard (1494), 3206
—Magdalenian, 250
—medieval extravagance, 3428
—Mug, 3514
—Minoan, 601, 769
—ritual, 608
—Roman, 2011, 2012, 2013
—Stuart, 3711

Costume—cont.

—Pascua (c. 1491), 3206
 —Victorian 10th-18th cents., 3044-47
 —Victorian, plate f.p. 1123
 Cotton, American production, 4350, 4495, 4497
 —industry in Great Britain, 4310, 4392, 4681
 —post-war depression, 5075
 —by-products, 1196
 —in monsoon lands, 339
See also Wool
 Cotylosauria, early reptile group, 118
 Council: *see* under specific entries only, Nivaca, Trent, etc.
 Count, medieval position, 2120
 County Courts, medieval jurisdiction, 2430
 Coup-de-poiug, prehistoric hand-axe, 117, 214, 215-16
 Coup d'Etat, of 18 Bructator, 4181
 —of November 6th, 1799, 1096
 Courier, Paul Louis, opposition to government, 1291
 Court of the Honour, in England, 2722
 Courtil, capitulation to Louis XIV, 3872
 Courtrai, Battle of, 3081
 Cousin, Jean, French glass stainer, 3238
 Covens, or covens, in witchcraft, 3257
 Covent Garden, the Westminster direction, 4233
 Coverdale, Miles, Bible of, 3031
 Cow, first domestication, 210
 —Hathor the divine, 361, 362, 363
 —milk not used by Greeks, 818
 —moon associated with, 360
 Cowley, Ambrose, buccancer, 3816
 Cowper, Wm., 1309, 1310
 Cowpox, and smallpox, 5010
 Cows' shell, as currency, 302
 —symbolical importance, 357, 360
 Cows' Charter, animal protection act (1822), 1101
 Cox, Sir Percy, at inauguration of King Faisal, 4612
 Coxon, John, buccancer, 3816
 Crabbe, George, apparent classicism, 3810
 —read in Germany, 3951
 Cradock, Admiral Sir Christopher, at Coronel, 4836, 4838
 Craft Guilds, 2918-23
 —pushing of and effects, 3489
 —restrictive powers, 3492
 —Venetian, 3035
See also Guilds; Merchant Guilds
 Crafts, primitive, in peace and war, 241
 Crag, Kerry, monolith with Ogham characters, 1509
 Cranaoh, portrait, Albert of Brandenburg, 3335
 Cranbrook, Flemish cloth hall, 3503
 Cranial Shape, modern distribution, 231
 Crannog, lake village in Ireland, 632
 Crannon, Battle of, Greek rout at, 1412
 Crassus, Marcus Licinius (Dives), consulship and laws, 1776
 —death at Carthage, 1782, 1870
 —life, 1834-35
 —relations with Pompey, 1770, 1781-82
 —Spartacus defeated by, 1776
 Craterus, Alex. the Gr.'s general, battle of Hydaspes, 1444
 —route in campaigns, map, 1422
 —suppression of revolts, 1409
 —victory at Crannon, 1412
 Crataeus, botanical drawings, 2077, 2078
 Cratinus, Greek poet, 1355
 Creation, Assyrian beliefs, 977
 —Babylonian legends, 644, 974
 —modernist view, 4806
 —Sumerian legends, 530
 Crécy, Battle of, 3005
 Crédit Mobilier, 4509
 Creds, post-war revolt against, 4862
 —war of, 1st-5th cents., 2320-43
 Cremation, Bronze Age, 613, 915, 940
 —Celtic, 1519
 —Chinese, medieval, 3507
 —Germanic, 2217
 —Etruscan, 1156
 —Villanovan, 1153
 Creoles, control, in S. America, 4110

Crescenti, family attempt to dominate the Papacy, 2502
 —stronghold in Rome, 2776
 Cretaceous Period, characteristics, 109
 —plate f.p. 96
 Crete, ancient, bronze in, earliest, 635
 —weapons, first, 109
 —dance, terracotta figurines, 767
 —disposal of pop., 739
 —Dorian invasion, 677
 —earliest culture in, 591-95
 —Minoan, Egyptian influence, 169, 1012
 —relations with, 163, 561, 1539
 —excavations, 589, 702
 —Greek mainland, influence on, 856, 868
 —maritime empire, 737
 —Philistines connected with, 796
 —religion, 1305
 —script, 36, 589, 761, 1066
 —Phaistos disk, 667, 1005
 —ships, 753, 1539
 —Sheff's connection, 1539
 —aphide-viridis, 591
 —Mycenaean absorbs Minoan culture, 856
 —architecture, Cretan origin, 810
 —colonization, 787
 —Neolithic culture, 26, 591-95
 —pre-Hellenic, map, 757
 —Troy and, 850, 865
 —Washimshi possibly connected with, 797
See also Cnosus; Minoan Culture
 Crete, modern, revolt of, 1565
 —Turkish attack, 3751
 Creusot Ironworks, Nasmyth's steam hammer in, 4350
 Cricket, in the 18th century, 4220
 Crimea, Genoese commerce in medieval, 2015
 —Italian annexation, 2860
 —Scythian raiders in the, 2194
 Crimean War, 4373
 Crimæus, Carthaginian defeat, 1415
 Criminal Law, in India, 4452
 —in revolutionary France, 4193
 —Roman, 1649, 1831
 Criminal Law Amendment Act, 4078
 Crinoline, in 18th century, 4332
 Croatia, added to Hungary, 3151
 Croats, origin and early history, 2470
 Crocodile, in England, 110
 —native superstitions, 310, 351
 Croesus, of Lydia, death, 1087
 —gift to temple of Artemis, 1300
 —war with Cyrus the Great, 1085
 Cro-Magnon Man, artistry of, 247
 —period of, 220, plate f.p. 220
 —skull, 193
See also Aurignacian
 Cromer, Evelyn Baring, 1st B., 414
 —consul-general in Egypt, 4636
 Cromford, Arkwright's mill, 4448
 Crompton, Samuel, spinning mule, 4319
 Cromie, Captain, murder, 4962
 Cromwell, Oliver, 3707-34
 —death, 3600
 —death mask, 3734
 —as dictator, 3580
 —economic influence on, 337
 —foreign policy, 3606
 —French alliance, 3834
 —Jamaica taken, 3603
 —navigation ordinance, 3551
 —portrait, 3725
 —practising, 3733
 —seal, 3732
 Cromwell, Robert, father of Oliver, 3724
 Cromwell, Thomas, 3486, 3721
 —monasteries suppressed, 3497
 Cromwell House, Highgate, figures from, 3723
 Crouje, General, Boer leader, 4623
 Cronns, in Greek mythology, 59
 —Sturn identified with, 1744
 Crookes, Sir William, and X-rays, 4704
 Cross, Anglo-Saxon, 2456
 —iconographic Celtic, 2074
 —as Minoan symbol, 603, 606, 768
 —Holy, piece in gold triptych, 2348
 —restored to Hieraculus, 2347-48
 Crossbow, 2930, 2931

Croton, Greek scientific centre, 1170
 Crown, English, under Normans, 2613
 —popularity, Elizabethan age, 3566
 —power of medieval, 2730, 3007-09
 Crozo de Gentilio, La, symbols, 260
 Cruikshank, George, caricatures, 4252, 5650
 Cruikshank, Isaac, Dr. Johnson and Mrs. Thrale, 3217
 Cruikshank, Robert, English factory slaves, 2229
 Crusaders, armour of, 2653, 2802, 2810
 —some examples, 2652
 —in Spain, 2659
 —involved, 2805
See also Knights Templars
 Crusades, 2613, 2707-2816, 2827, 2847
 —Alexius Comnenus and First, 2651
 —conquests organized, 2653
 —in Eastern Empire, 2749, 2797
 —effect on European civilization, 2813, 4313, 3125
 —Leprik attacked, 2801
 —famines, causes of, 2806
 —feudal ideas, 2660
 —First Crusade (1095), causes and aims, 2615, 2707, 2803-04
 —Fourth Crusade (1145), aims, 2740
 —Frederick II and, 2843
 —French share in, 2887
 —influences, 3111
 —Jerusalem taken, 2709
 —Londra, 2712
 —Military Orders and, 2077
 —motives, 2651, 2701, 2797, 2801
 —Nicaea besieged, 2804
 —Norman share, 2616
 —rallying cry, 2681
 —Saracen friendships, 2541
 —Second Crusade (1145), 2660, 2708
 —Third Crusade (1189), 2705, 2712-44
 —trade influenced, 2807
 —Turks hostile, 2784
 —Urban II and First Crusade, 2651
 —women worship, 381
 Crystals, analysis by X-rays, 4705
 —power of growth, 88
 Ctasios, Persian history of, 1133
 Ctasiphon, Arch of Ctasios, 2315, 2316
 —Mithraeum capture, 2317
 —Parthian capital, 1986, 2309
 Cuba, attempts on Mexico, 4337
 —independent republic, 4576
 —Spanish-American War, 4576
 —United States and, 4338
 Cuthbert, in modern art, 5629
 Cudworth, Ralph, theism, 4052
 Culrass, English, 2033, 2036
 —in Romanic times, 816
 —Roman, 1723, 2033
 Culrassier, 3642
 Culbin Sands, half-reclaimed, 101
 Culloden, battle of, 3870, 3894
 Cullompton, church roof, 3496
 Cultivation, dry grass, advantages, 345
 —herdsmen and, 231-22, 313
 —hunters and, 217, 343
 —origin of, 218
 —in prehistoric China, 238
 —methods, still in use, 381
 —world's areas, map, 338
See also Agriculture
 Culture: *see* Civilization
 Cumae, alphabet, 1755
 —early Greek settlement, 893, 902, 1035
 —Etruscan attack, 1229
 —Sibylline books, 1752
 —tunnel to Lake Avernus, 2034
 Cumberland, Duke of, becomes Elector of Hanover, 1273
 Cummlan, S., Easter controversy, 2083
 Cunaxa, battle of, 1216
 Cunegonde, w. of Henry II, 2503
 Cuneiform, 1067-70
 —Assyrian tablets, 725, 940
 —development of, 513
 —Persian, 1960
 —script writing, 1069
 —training in, 960
 Cunibert, Lombard king, 2354
 Cunoheilius: *see* Cymbeline
 Cup-bearer, Minoan fresco, 771
 Cupping, in Greek medicine, 1477
 Curaca, Inca local rulers, 3381
 —houses, 3382

Curare, poison for arrows, 282
Carlew, in 18th century Germany, 3971
Gurials, under Roman Empire, 2230
Guria Regis, tental assembly, 2013
Guria, Roman, 1795, 1798
Gurrueny, American paper, 4026
 —problems, 4506
 —Reform, 4511-12, 4725
 —Babylonian, silver, 582
 —in Bolshevik Russia, 1971
 —Greek and Persian, 1549-50
 —inflation, 390, 4915
 —Locke and, 4050
 —paper, in China, 3505, 3506
 —in Revolutionary France, 4187
 —pictive forms, 292
 —Roman, 2131-36
 —after Thirty Years' War, 4635
Curtius, Q., history of Alexander, 1895
Curwen, J., tonic sol-fa notation, 2060
Curzon, Marquess Foreign Minister, 4390
 —restores Tai Mahal, 3777
 —at San Remo conference, 4887
Cush, part of Egyptian Empire, 670
Customs (tariffs), Byzantine seals, 2630
 —strictness, 2620
 —in pre-Revolution France, 4119, 4120
 —under Roman Empire, 1988
 —in U.S.A., 1511
See also Free Trade; Protection
Custoza, battle of, 4367, 1381
Cutlers, trade in Roman times, 2003
Cutlers' Guild, and Armourers, 2940
Cuzco, Inca buildings, 3379
 —settlement in, 3370-80
 —kingdom becomes Inca Temp., 3306
 —megalithic buildings, 2593, 2599
 —S. Domingo cathedral, 3387
 —stone of twelve angles, 2597
 —Temple of the Sun, 3387
Cyzarxos, Median king, 1137
Cybele, Magna Mater, cult 2085, 2086
 —in lion-drawn chariot, 1059, 2086
Cybalades, artistic influence, 770
 —Asiatic influences in, 470
 —culture, and Minoi, 606, 700
 —first bronze weapons in, 469
 —Greek influence in, 468, 469
 —pottery from, 010
 —Trojan connexion, 850
Cybele Pools, and the Trojan War, 872
Cyclopoan Masonry, at Mycenae, 773
Cylon, Greek aristocrat, abortive coup d'état, 1118
Cymbeline, kingdom of, 1854
Cyme: *see* Cumae
Cymotrichi, wavy-haired peoples, 2384
Cymro Speech, eastern limit, 302
Cynaeard, fight with Cynewulf, 2406
Cynwulf, Anglo-Saxon king, 2400
Cynic School, doctrines, 1457, 1904
Cynognathus, early reptile, 119, 120
Cynopolitan Nome, tutelary deity, 479
Cynosephalea, battle of, 1679
Cyran, Church Father, literary style, 1898
 —martyrdom, 2187
 —writings of, 2320
Cypriote Art, 1012-13, 1014, 1025
Cyprus, Achaeans in, 737
 —Alexander the Great rules, 1439
 —Arcadian speech in, 989
 —Assyrian domination, 1014
 —British obtains, 4028, 4554, 4753
 —civilization, early, 608, 1012-14
 —Egyptian conquest, 602, 1014, 1025
 —copper from, 551
 —female figure from, 468
 —Greeks in, 1013
 —Latin kingdom, 2744, 2811
 —Minoan colonies, 785
 —Persian claims, 1090, 1218
 —Richard I and, 2743
 —timber in, 467
 —Troy and, 865
 —Turks seize, 3047-18
 —votive figure from, 610
Cypselus, tyrant, 1389
Cyrenaic School, 1457
Cyrene, Egyptian influence, 1000
 —excavations, 1056, 1057
 —pillars in church, 2178
 —rock tombs, 1058
 —Romans in, 1050-57

Cyrl, Apostle of the Slavs, alphabet of, 1062, 2637
 —missionary work, 2637
 —Scriptures translated, 2637
Cyrl S., of Alexandria, conflict with Orestes, 2206
 —and Hypatia's murder, 2206, 2334
 —Mother of God controversy, 2337
Cyrl, Grand Duke, joins revolutionaries, 4918
Cyrus the Great, 1085-86, 1140
 —death, 1087, 1141
 —figure on bas-relief, 1085
 —Jews under, 1944
 —Median crown seized, 1083
 —Persian kingdom founded, 406
 —tomb, 1087, 1450
Cyrus the Younger, 1216-47
Cyrus of Phasis patriarch of Alexandria, 2342
Cyzicus, Greek settlement, 1048
Czasil, victory of Fred. the Gr., 3802
Czecho-Slovakia, Huss' influence on, 3077
 —independent state, 4877
 —republic founded, 3617
See also under Bohemia
Czecho-Slovaks, join Allies, 4783
Czeclis, history, 3077
 —revival of language, 330
Czernin, Count, at Brest Litovsk, 4956

D

Dacia, Goths in, 405, 2213
 —Roman conquest, 1964, 1985
 —Trajan's bridge, 2046
Dacotils, suppression, 4464
Dad-Ishu, Council of, 2311
Daedalus, Minos and, 993, 1530
Daemon, in teaching of Epictetus, 1967
Dagger, bronze, in Treasure of Priam, 353
 —flint, lake dwelling, 268
 —gold, Tutankhamen's tomb, 698
 —from Ur, 514, 517
 —Inaid, from Mycenae, 344
 —iron, Tutankhamen's tomb, 554
 —Myceanean, plate, 750
 —Neolithic, from Denmark, 273, 275
Dagobert I., portrait, 2269, 2270
Dahir, Rajput raja, conquest by Arabs, 2350
Dahomey, female warriors, 378, 375, 3984
 —native making fetish, 236
 —symbolical axe from, 271
Dalshur, jewelry, from 554
 —pyramid of Sneferu, 425, 504
Daimones, in Greek religion, 1369
Dairy, Sumerian, limestone relief, 522
Dajukka, possibly Dojoces, 880
Dakota, N. and S., admitted to Union, 4507
Dalbier, Col., trained Cromwell, 3727
Dalhousie, Lord, in India, 4457, 4458
Dallon, book on Ethiopia, 2109
Dalmatia, 2751, 3152
Dalou, Jules, and Mimbau, 4170
 —Triumph of the Republic, 4155
Dalton, John, atomic theory, 4525
 —portrait, 4525
Damaseus, on Babylonian gods, 583
Damascus, Assyrian conquest, 831, 885
 —development, 820, 878
 —east gate, 2059
 —falls to British (1918), 4781
 —Great Mosque, 2356
 —Hittite lion from, 734
 —Pekah allied with, 829
 —Saladin's tomb, 2744
Damaskhunas, probably Damascus, 730
Damasus I. S., pope, 2321
 —fresco-portrait, 2184
 —nickname, 2084
 —struggle for succession, 2107
Damasus II., pope, death, 2773
Damietta, capture of, 2821, 3822
Dampier, William, 3815, 3816
Dampierre, General, in Thirty Years' War, 3696
Dan, tribe, 791, 813
Danaans, in Agamemnon's host, 808
 —defeated by Rameses III, 674
Danaol, identified with Danaus, 797
Danbury, Con., strike of hatters, 4518
Danby, Lord, and Louise de Querouaille, 4004
Dancing, Assyrian, 982
 —Carthaginian, 1642
 —Cretan country, 767
 —Egyptian feast, 499, 707
 —funeral, 537
 —Middle Kingdom, 553, 555
 —Etruscan, 1165
 —Greek, 1282, 1319
 —Macedon, 1385, 1386
 —mann, 3110, 3112
 —and ritual combats, 353
 —Prehistoric, plate, 202
Dundangan, Battle of, 2782
Dunegeld, 2613
 —maintained by William I, 2613
Danelaw, 2110, 2708
 —extent, 2497
 —settlement and character, 2605
Danes, Alfred the Great and, 2497
 —conquest of England, 2507
 —invasion of England, 2423, 2455, 2463-64, 2496
 —place-name, map, 302
 —rulers, early, 2515
Daniel, G. H. O., printing press, 3107
Daniel the Stylite, S., 2376
Dauho, Prince, enters Scetari, 4584
Dante Alighieri, 3223, 3225, 3234
 —and Boniface VIII, 2846
 —De Monarchia, 3060
 —desire for peace, 3204, 3212
 —Divine Comedy, 3221, 3223, 4017
 —and Frederick II, 2840
 —on Guelphs and Ghibellines, 2703
 —Inferno, 3014
 —mask, 4225
 —Michelangelo influenced, 3220
 —on monarchy, 3842
 —Petrarch contrasted with, 3224-25
 —portrait by Giotto, 3223
 —Renaissance influenced, 3210, 3221, 3223-25
 —on Robert Guiscard, 2705
 —Ugo of Tuscany extolled, 2755
 —vernacular used, 3223, 3224
 —Vergil's influence on, 2245
 —Vita Nuova, 3221
 —on William the Good, 2705
Danlos, Georges Jacques, 4172, 4173
 —execution, 4091
 —a Jacobin, 4088, 4143
 —member of Cordeliers, 4162
 —in Paris commune, 4087
Danube, bridges, 1967, 2040
 —frontier, 1871-72, 1933, 2141
 —Romanised city on, 1934
Danubian Culture, prehistoric, map, 423, 900-01, 907
Danubian Roman, Roman campaigns in, 1973-74
 —wheat supply from, 1991
Danuna, Peoples of the Sea, 794
 —defeat by Rameses III, 706
Danzig, burgo-master, 3976
 —commerce, medieval, 3050-51
 —dining-room in, 3973
 —free city (1919), 4877
 —roads near, 18th cent., 3978
 —under League of Nations, 4929
 —view in 18th cent., 3951
Daphnae, Greek settlement, 1023
Daphne, and Apollo, by Bernini, 3343
Dara, son of Jehangir, 3774-75
D'Arbois de Jubainville, on origin of Celts, 1510
Darby, Abraham, 4342
 —ironworks, 4213, 4343
Darby, Adm., at relief of Gibraltar, 3910
Dardanelles, attack on (1915), 4753-55, 4754, 4800
 —British attempt to force, 4844, 4845
 —geological origin, 853
 —German panoramic plan, 4845
Dardania, existence in classical times, 861
Dardanians, Hittite alliance, 737, 794
 —Priam's allies, 861
Dardanus, connexion with Troy, 801
Dardani, allies of Hittites, 808
Darenth, hypocaut, 2153
Dares the Phrygian, on Trojan War, 872

- Daries**, gold currency, 1550
Dario, Ruben, Neutragian poet, 1340
Darius I, the Great, 1089-90, 1111-13
 —Babylon sculptures, 1089-90, 1129
 —bodyguard, plate f.p. 1140
 —cottage, 1111
 —cylinder seal, 1089
 —Darian campaign, 1067
 —death, 1090
 —Egyptian canal, restoration, 1089
 —empire of, 401, map 1126
 —Greece invaded, 1090
 —Napoleon compared with, 111
 —Persepolis ruins and palace, 1131-36, plate f.p. 1111, 1111-42
 —represented on wine-vessel, 1087
 —rock tomb, Nakshi Rostam, 1113
 —Susa palace, plate f.p. 1110, 1115-18
Darius II, Nothos, 1216
Darius III, Codomannus, and Alexander the Great, 1107, 1135-48, 1487
 —at Gangamela, 1407, 1412
 —at Issus, 1407, 1437, 1438
 —murder, 1408, 1187
 —peace terms, 1110
Dark Ages: see Middle Ages.
Darmstadt, occupied by French (1020), 1888, 4011
Dart, personnel, 281
Dartmouth College (U.S.A.), 4017
Darwin, Charles R., 301, 1523
 ——on Equians, 311-12
 ——and Origin of Species, 4522
 ——as racial type, 233
Darwin, Erasmus, 1069
Dasyllian, etymology, 1133, 1148
Dasya, inhabitants of India, 452
Dates, 455, 458
 —Arabic words from, Egypt, 488
 —in Mesopotamia, 451, 455, 458, 581
Datis, Persian commander, 1097-03
Dauletnad, capital of Delhi Empire, 2902, 2903
Dau, Prussian commander, 3001
Dauphiné, 2035, 3001
 —crown appanage, 3001
David, king of Judah, 810
 —altar raised by, 1040
 —(Hebrew kingdom established, 677
 —war lord, 875
 —Jensalem captured, 812
 —Nabal and, 223
 —Philistine power broken, 706
 —and the Shewbread, 2206
 —statue by Donatello, 2237
 ——Michelangelo, 2230
David I, of Abyssinia, 3104-05
David I, of Scotland, on charter, 2658
David II, of Scotland, 2698
David, J. L., drawing of people's representative, 2116
 ——Marie Antoinette in the tumbrel, 1096
 ——M. and Mme. Séiziot, 1150
 ——Napoleon's coronation, plate f.p. 4091
 ——portrait of Lavolsler, 2832
 ——tennis court oath, 1159
Davies, W. H., British poet, 5010, 5017, 5018
Davis, Edward, buccaneer, 3813, 3816
Davis, Jefferson, president, 1390, 1391
Davis, John, search for N.W. passage, 3571
Davis, Mary (or Moll), mistress of Charles II, 4001
Davout, Marshal, at Jümburg, 4196
Davy, Sir Humphry, air lamp, 4708
 —and nitrous oxide, 5019
Dawes Act (1887), and Red Indians, 4506
Dawes Report, on reparations, 4892
 —German payments under, 4913
Dawn, in Babylonian mythology, 610
Dawson, G., and Pittdown Inn, 149
Daylight Saving, Middle Ages, 3442
Day of Judgement: see Judgement
Daza: see Maximin
Dead, food for, Egypt, 355
 —housing of spirit, 289
 —journey to Heaven, 302, 363
 —lay-of-war for, 353
Dead, Disposal of: see Barrow Tomb; Reclive Tomb; Burial Customs; Cremation; Grave; Tomb; Urn Burial
Dead, Synod of the, 2770
Dea Dia, earth spirit, 1717
Dean, Forest of, Roman road, 2016
Death, African house, 1160
 —Greek view, 1188
 —in modern philosophy, 5091
 —punitive idea, 356
 —spiritualism and, 4868
 —Vedic idea, 1207
Death Penalty, abolition in Russia, 1949
 —in Middle Ages, 3151
Death Rate, English, 18th cent., 5015
Debate, Fronton of, 3671
Deborah, Song of, 812
Debt, Roman law, 1619
Deabrist, Russian revolutionaries, 4939
Decameron, 3106
Decann, Auramazda's de-sign, 3778
 —civilization, early, 357, 450
 —conquest, 3170
 —Hittite rule, 2093
 —status in, 3123, 3361
Decabris, Darian chief, 1903, 1906, 1907
Decalga, Spartan capture, 1244
Decans, emperor, 2115, 2116, 2180
 —last, 1926, 2115
 —edict against Christians, 2160
Decius Mus, and son, herolam, 1410-20, 1903, 1906
 ——philelans added, 1653
Declaration of Right (1689), 3746
 —(1613), 3674
 ——medal commemorating, 3675
Decretum, of Gratian, 3919
Dee, John, acromancer, 3562
Deer, 133, 136
 —in cave paintings, 268-9, 262, 264
 —engraving from Ur, 523
 —Irish, extinction, 130
Deerfield, massacre of, 4022
Defence, H.M.S., at Jutland, 4851
Defender of the Faith, Henry VIII as, 3314
 —B. Roman emp. as, 2613
Defenestration of Prague, 3590
Delfand, Mme. du, salon, 383
Dele, Daniel, and German novel, 3950
 —Journal of Plague Year, 3116
 —on Peter the Great, 3934
 —and San Juan Fernandez, 3816
Deformation, primitive practice, 297
Degas, H. G. E., Répétition d'un Ballet, 4022
Degenfeld, pottery from barrow, plate 223
Delatation, in Rome and Greece, 1876-8
Delices, founder of Median monarchy, 886
Del-el-Bahrl, Hatshepsut at, 371
 —model of servant from, 619
 —Punt expedition, 353, 600, 681
 —temple of, 691
Dejnev, Simon, in Berlin Stralt, 3030
Delacroix, and French painting, 4315
De la Mare, Walter, 5017, 5018
Delation, under Roman law, 1850
Delaware, Swedish settlement in, 4006
Delbruck, Hans, on Germany's task, 4890
Deloace, Théophile, resignation, 4577
Delil, gate, 2992
 —Ghazilid procession, 4901
 —Halls of Audience, plate 3786
 —Humaynu's tomb at, 3784
 —in Indian mummy, 1163-61
 —Jama Masjid, 3790
 —Kuth Mihar, 3166, 3177, 3178
 —at Isam, 3178
 —place, 3790, plate 3786
 —recaptured by Humaynu, 3766
 —sacks of, 3121, 3790
 —formerly Shahjahanabad, 3789
 —Shah's tomb, 3168
 —Tamerlane sacks, 3121
 —Tughlak Shah's tomb, 3167
Delili, Empire of, 2091-92
 —revival under Bahol Lodi, 3123
 —wrecked by Tamerlane, 3121, 3123
Delian Confederation, 1231, 1392, 1608
 —Aetna joins, 1235
 —Athenian control, 1237, 1393
 —commercial control, 1393
 —fortunes, 402
Delian Confederation—cont.
 —headquarters, 1231, 1232, 1391
 —map, 1391
 —naval forces, 1393
 —tribute question, 1395
 —see also Athens
Delium, battle of, 1242
Della Francesca, Piero, 3236
 —portrait of D. of Urbino, 3216
Della Robbia, Luca, panels at Florence, 3236, 3238
 ——plaque, 3239
Della Scala, family, in Verona, 3215
Delos, Apollo's shrine, 1393
 —mystery precincts, 1518
 —Roman altar, 1710
 —trade centre, 2129
 —view of, 1231
 —see also Delian Confederation
Delphi, Gaule at, 1525-26, 1583
 —Great Altar and Sacred Way, 1369
 —gymnasium, 1311
 —sculpture from shrine, 1659, 1060
 —serpent column, 2205, 2207
 —shrines, 1059
 —statues, 1311
 —temple of Apollo, 1311, 1312-13, 1368
Delphic Oracle, 1368, 1700
 —importance in colonization, 1388
 —influence, 1374, 1377
Demeter, 1381, 1382
 —emanation from Gc, 1371, 1381
 —identity with Ceres, 1752
 —sanctuary at Eleusis, 1383
 —temple in Carthage, 1022
Demetrius (Demetrius), of Bactria, 1191
 —conquests, 1190, 1701
Demetrius, Poliorcetes, of Macedonia, 1410, 1113
Demetrius II, of Macedonia, death, 1585, 1675
Demetrius I, of Syria, 1103
Demetrius II, of Syria, 1703, 1954
Demetrius, s. of Philip, of Macedon, assassination, 1880
 —hostage in Rome, 1087
Demetrius of Phaleron (Phaleron) at Alexandrian Library, 2001
 —at Ptolemy's court, 2167
Demetrius, of Pharos, plate, 1585
Democedes, of Chidus, treatise on medicine, 1470
Democracy, 1633
 —in Athens, 1091, 1122
 —French Revolution and, 4151
 —future of, 5082
 —Great War and, 5079
 —imitations, 399
Democratic Party, in U.S.A., 4507, 4511
Democritus, philosophy, 1454
 —theory of atoms, 1471
Demoneology, in Assyrian religion, 970-2
 —Greek, 1381
 —in Middle Ages, 3153
Demosthenes, Athenian gen., 1212, 1211
Demosthenes, Athenian orator, 1404
 —banishment and recall, 1112
 —on banking, 1552
 —Macedon recalled, 1101-5, 1412, 1427
 —Persian bribes, 1430
 —suicide, 1412
Demirli, Phrygian carving from, 738
Den, Egyptian king, ivory tablet of, 550
 —smiling an Asiatic, 407
 —tomb, floor of, 503
Dennarus, Roman coin, 1612
Denikin, General, anti-Bolshevik, 1961
Denis, S., blessing a crusader, 2879
 —see also Dionysius the Areopagite
Denmark, battle dominance, 3538
 —independence, 413
 —Neolithic implements from, 273, 275
 —Prussian invasion, 4380
 —religion, 3313
 —in Scandinavian kingdom, 3134
 —socialism in, 4088, 4993
Dentistry, in ancient Egypt, 702
Deorham, battle of, 2271
Deptford, Peter the Great at, 3937
Depth Charge, use, 4867, 4858
Derby, Earl of, and Reform Bill of 1867, 4430
Derbyshire, Roman lead mines, 1905
Derende, Hittite monuments at, 718

- Derfflinger, ship, at Jutland, 1840, 1851
 Derings, court preacher, on Italian literature, 3559
 Descares, René, 3824, 3863
 —and automaton theory, 1531
 —and classicism, 4040
 —on God, 4054
 Desart, map, 338, 339
 —Mongolian, 332
 —spread after Ice Age, 226
 Deshasheh, tomb of Anta, 559
 Deshima, island, 3604
 Desiderius, Lombard king, 2116-17
 Desiderius, Abbot: see Victor III
 Design, in modernist art, 5028
 Desmond, E. of, murders Irish Protestants, 3555
 Desmoulins, Camille, and Cordeliers, 4162
 —execution, 4175
 —on Mirabeau, 4168
 —portrait, 4175
 —on Robespierre, 4177
 Despotism, nationalism and, 3005-17
 —Russian, 16th cent., 3481
 See also Autocracy
 Dessau, Bridge of, Mansfeld at, 3640
 Destroyer, making smoke-screen, 1832
 —use against submarines, 4858
 Determinism, and free will, 1905, 5012
 Detroit, Mich., motor factory, 4736
 Deuteronomy, date of, 4055
 Devadatta, opposes Buddha, 1215
 Devas, in Indian mythology, 2394, 2395
 Deveria, Latin spirit, 1740
 Devil, in corsets, 3455
 —medieval view, 3452-53
 —in witchcraft, 3253-53
 —women as agents, 389
 Devil's Pavement, Roman road, 2035
 Devolution, War of, 3740
 Devonian Period, 99-101, plate f.p. 96
 —earth movements, 111
 Devonshire, Celtic place-names, 2451
 Devonshire, Duchess of, in Westminster election, 4533
 De Wail, Christian de, revolt (1614), 4753
 Dextiles, cenotaph to, 1247
 Dharmā, Hindu doctrine, 2395
 Dharmasāstra, 2400
 Dholka, mosque, 3179
 Dhu Nuwas, Jewish king, 2037
 Diadem, gold, from Mycenae, 781
 —gold, from Ur, plate f.p. 520
 —of Tutankhamen, 699
 Diadochi, the Successors, 1410, 1412
 —dynasties, 1683
 Dialogues, of S. Gregory, 2433
 —of Plato, 1458
 Diamond, Koh-i-nor, 3775, 3770
 —Kimberley diamonds, 4619
 Diamond Sutra, Buddhist text, 2551
 —printed 9th cent., 2557
 Diana, head on coin, 1771
 See also Artemis
 Diarbekir, Sumer appanage, 521
 Diaz, Bartolommeo, Cape route discovered, 3034, 3115, 3531
 Diaz, Bernal, on Aztec treasures, 3373
 Diaz, Porfirio, Mexican dictator, 4334, 4337, 4388
 —exiled, 4727
 Diasearohus, geographical science, 1480
 Dieterbund, at Göttingen, 3060
 Dickens, Charles, 1510, 4541, 4545
 —and social reform, 4406
 Dictatorship, Roman, 1799
 Dictionary, of Académie française, 3862
 —in Assyria and Babylonia, 972
 —under Ming dynasty, 3519
 Dictys, the Cretan, on Trojan War, 872
 Digull, Irish monk, 2684
 Diderot, Denis, 4062, 4063, 4123
 —and censorship, 4121
 —and the Encyclopédie, 4128
 —sensibility, 4303
 Dido, Carthage founded, 1177
 Diot, family, 3107
 Didymus, Alexandrine scholar, 2170-71
 Diet: see under Augsburg, Worms, etc.
 Digby, George, Lord, 3721, 3722
 —in Vienna, 3030
 Digging-stick, precursor of spade, 284
 Dijon, abbey, 2442
 Dikta, vases from cave, 739
 Dilbat: see Ishtar
 Dimelrod: see Edaphosaurus
 Dinan, surrender to William I, 2610
 Dinant, David de, writings burned, 3016
 Dinaric in Croatia, 229
 —race characteristics, 228, 236
 Dingo, 285
 Dinosaurs, reconstruction, 134
 Dinosaur, 121-8, 129-30
 —armoured type, 123
 —fossilised eggs, 123
 Dinotherium, description, 135
 Dioecesan divisions, 2429
 Diocletian, emperor, 407, 2122-23
 —abdication, 2125
 —baths of, 2033
 —Christians persecuted, 2125
 —divided, 2123
 —extended, 2399
 —empire reformed, 2123
 Diodorus, historian, 1504
 —on the Gauls, 1516
 —on religion, 1901
 Diodotus, of Bactria, coins, 1191
 —independence, 1196, 1586
 Diogenes, lived in jar, not tub, 1457
 Diogenes Laertius, on Epicureans, 1910
 Diogenes Romanus, emp., deposed, 2786
 Diomedes, Achaean chief, 789
 Dion, minister of Dionysius II, 1251
 Dione, wife of Zeus, 1366
 Dionysius I, of Syracuse, 1250, 1399
 —weapons, 1723
 Dionysius II, of Syracuse, 1251
 —expelled by Timoleon, 1415
 Dionysius, of Alexandria, 2180
 Dionysius, of Halicarnassus, historian, 1503
 Dionysius, of Phocaea, piracy, 1547
 Dionysius the Areopagite, 2431
 Dionysius Thrax, grammar, 2106
 Dionysus, at banquet, 1282
 —in battle, 1059
 —cult of, 1315, 1384, 1385
 —Hellenistic figure, 1301
 —Heraeus carries, 3302
 —identified with Krishna, 1490
 —Mueals worshiping, 1355, 1356
 —pirates turned to dolphins, 1150
 —sculpture, 1385
 See also Bacchus
 Dioptra, of Hero of Alexandria, 2076-71
 Dioscorides, gem engraver, 1938
 Dioscorides, Greek physician, 1506
 —with Crteas, 2078
 —treatise on botany, 2077
 Dioscorus, patriarch, 2338
 Dioscuri, Thes, on coins, 1491, 1612
 See also Castor and Pollux
 Diphtheria, antitoxin discovered, 5052
 Diplomacy, by conference, 4880
 Diplopterus, early lung fish, 114
 Dipylon Vases, from Dipylon Gate, 905
 —geometric style, 996-8, 1033
 Dir, Varangian leader, 2523
 Directory, French, Burras president, 4146
 —Bonaparte disperses, 4096, 4180
 —constitution, 4133
 —educational reforms, 4135
 —Sleyes and, 4158, 4159
 Discus throwing, in Greece, 1323
 —instruction in, 1324, 1325
 —statue, 1320
 Dissase, in anthropoids, 183
 —18th cent. notification, 5044
 —mark of early sainthood, 2338
 Disk, Monsterial flint tool, 215, 246
 Dispersion, Jews of the, 1050
 Dispensing Power, legal view, 3002
 Disraeli, Benjamin: see Beaconsfield
 Dissection, Galen and, 2077
 —in Greece, 3231
 —Michelangelo and da Vinci, 3231
 —Vesuline? Epitome, 3823
 Distribution, Socialist problem, 4093
 Din, battle of, 3534
 Divination, 1805, 1902
 —Babylonian river model, 351
 —in China, 1670
 —on oracles, 1158, 1385
 —Etruscan, 1150, 1159
 —modern, 356
 Divine Comedy, The, 3221, 3223
 Divine right of kings, origin, 3060
 —in Persia, 2307
 —Reformation and, 3896
 —after Restoration, 3704
 —Stuart theory, 3659
 Divorce, in Babylonia, 376, 540, 577
 —in Rome, 2005, 2163, 2302
 Divorcers (Sect), 3718
 Djebel Smana, monastery, 2328
 Djemila, forum, 1952
 Dmitri, Grand Duke, and Rasputin, 1946
 Dmitri, False (I), 3926, 3927
 —overturns Boris Godunov, 3580
 Dmitri, False (II), 3927
 Dnieper, home of Scythians, 2171
 Dobruja, ceded to Rumania, 3551
 —invaded by Mackensen, 4766
 Doctae, early sect, 2330
 Dockers' strike, (1889), 4679, 4680
 Dock, Buenos Aires, 4327
 Doctor, Greek, 1506
 —medieval, 3453, 3989
 —Roman, 2240, 2241
 —Saracen, 2339
 See also Medicine
 Dodge Motors, factory, Detroit 4736
 Dog, ancestry, 133
 —Assyrian, 371, 967, 969
 —Cretan, 597
 —domestication, 213, 214, 285
 —Egyptian, 183, 486, plate f.p. 552
 —on Greek sculptures, 1281
 —as hunting companion, 283
 Doge (in Venice), 3031, 3035
 —dress, 3045
 —election ceremonies, 3631
 —painting by Bellini, plate f.p. 3044
 Dogger Bank, Battle of the, (1915) 4843
 —H.M.S. Lion at, 4831
 —Dutch defeat, 3916
 —as forest land, 27, 28
 Dog River, tablets at mouth, 506
 Dolabella, and Mark Antony, 1790
 Dolacrobis, gold mines, 2610
 Doldrums, region of, map, 338
 Dols, in Rome, 2002, 2004, 2019
 Doliche, Hittite god from, 737, 738
 Dolichocephale: see Long-heads
 Dolmen, 200, 620
 —at Carnae, 621
 —in Jersey, 269
 —Kit's Coty House, Ayleston, 620
 —in N. Africa, 615
 —near Otranto, 613
 —in Sardinia, 614
 —in Spain, 614
 See also Megalithic Culture
 Dolea, in Greek assembly, 339
 Domsial System, 2602-63
 Dome, Byzantine, 2635
 Domesday Book, 2613
 —extract from, 2613
 —social importance, 5640
 Domestication, of animals, 210, 285, 486
 Dominions, status of, 4899
 Dominic, S., order founded, 2749
 —portrait, 3412
 Dominica, Rodney's victory, 3909, 3910
 Dominicans, in Africa, 3463
 —foundation, 2284, 2740, 3412
 —habit, 2280
 —support Papacy, 3003
 Domitian, emperor, 1860
 —Christians persecuted, 2182
 —circus, 2022, 2024
 —edict on viticulture, 1904
 —his worship, 2067
 —pepper stores built by, 1988
 —represents father, 1858
 Domitilla, Flavia, banishment, 2182
 Domitius Ahenobarbus, f. of Nero, 1852
 Don, river, home of Scythians, 2471
 Donabana, usurps Scot. throne, 2658
 Donatello, 3235, 3237
 —David, statue, 3237
 —Gattamelata, statue, 3039, 3040
 —Madonna and Child, 3242
 —Poggio Bracciolini, statue, 3321
 Donation of Constantine, 2481, 2487, 8018, 3452

Donauwörth, captures, 3652, 3750
 Doncaster, factory at, 4350
 Donna, John, edify, 3712
 — poem, 3712
 Dou Quixote, 3223
 Dorchester Laborers, transportation, 4672
 Dordogne, cave floors to, 142
 — early man to, 214
 Doria, Andrea, routed pirates, 3805
 Doria, Luciano, Genoese commander, 3031
 Doria, Paolo Mattia, friend of Vico, 4075
 Doriaus, 987–8, 1305
 — in Asia Minor, 883
 — Greece invaded, 677, 983, 1032–33
 — influence, 993
 — origin, 790, 983
 — shipbuilding, 1019
 Doric Order, in architecture, 1308
 Doric Style, in pyramid of Gesser, 503
 Doriens, Spartan prince, colonisation, 1004, 1181, 1537
 Doria, Greece, 888
 Doros, founder of the Hellenes, 1033
 Dorpat, Treaty of, 481
 d'Orsay, Count, drawings, 4265, 4311
 Dorset, Celtic place-names, 2151
 Dorylaeum, crushing victory, 2052
 Doryphorus, or Spear Bearer, 1309
 Dost Mahomed, Amir of Afghanistan, 4458, 4490
 — death, 4403
 Douai, evacuated by Germans (1918), 4781
 — Louis XIV entering, 3642
 Douanmont, captured by Germans, 4763
 Douglas, family, armorial bearings, 2081
 Dove, Christiana symbol, 2189
 — in Egyptian pbr., plate f.p. 553
 — in Minoan pottery, 600
 — in Neolithic Crete, 595
 Dover, Charles I at, 3600
 — Roman lighthouse, 2050, 2051
 — service with Calais, 4351
 Doves Press, 8199
 Dowager Empress : see Tzu Hsi
 Dowry, in Babylonia, 577
 Dokogatrius, Miles, defence of Greek Church, 2704
 Doyle, James, at Reynolds' party, 4210
 Drachenlooch, cave-bear skulls, 189
 Drachma, Greek money, 1550
 Draco, code of laws, 1012, 1118
 Dragonnades, 3744
 Deagut, Barbary corsair, 3805
 Drama, at Akhetaton, 686
 — in Babylonia, 534
 — at Ur, 593
 Drainage, at Cossus, 770
 — Roman system, 2020, 2051, 2238
 Drake, Sir Francis, at Cadiz, 3543, 3476
 — — in Caribbean, 3542
 — — circumnavigation, 3542 3543
 — — in Moluccas, 3542
 — — portrait, 3512
 — — at Santo Domingo, 3800
 — — in West Indies, 3476
 Drama, in China, 3516
 — classical, 4038
 — Elizabethan, 3558
 — (Gottfried and the German), 3950
 — Greek actor, 1355
 — influence, 1561
 — of the Illumination, 3956
 — Renaissance under Shakespeare, 3215
 — and ritual combats, 353
 — in Victorian age, 4552
 — women in, 377
 See also Greek, etc.
 Draughts, 3116
 — board, from Cossus, 603
 — Middle Minoan, plate f.p. 609
 — from Ur, plate f.p. 529
 — box from Cyprus, 1928
 — Egyptian game resembling, 499
 — in Greece, 1340
 Dravidians, in pre-Aryan India, 430, 462
 Drayton, Michael, and national consciousness, 3553
 — Polyolbion, 4047
 Dreadnoughts, in Punic Wars, 1038

Drepanum, Roman sieve, 1576
 Dresden, battle, 1106, 1196
 — Frederick the Great at, 3891, 3900
 Dresden, ship, escapes Sturdee, 4810
 Dreux, battle of, 3103
 Drift Man, terrace-dwellers, 151
 Drinking, in England, 4931, 4235
 — in Germany, 3911
 Drinking Vessels, Anglo-Saxon, 2153
 — Greek, 1283
 — Persian, 1131
 Droeshout, Martin, Shakespeare, 3558
 Drogheda, about 1680, 3731
 — sack, 3727, 3731
 Drought, economic effects, 702
 — ruin independent of, 331
 Drownage, death penalty, Scilly Isles, 3155
 Druids, in Gaul, 1514
 — Romans and, 1998
 — teaching, 1529
 Drum, in Babylonian worship, 585
 — for signalling, 201, 299
 Drummond, Sir Eric, 4927, 1931
 Drunkenness, 847
 — Elizabethan, 3577
 Drusus, Claudius Nero, Germanicus, campaigns, 1816, 1985
 — — — — — parentage, 1817
 — — — — — portrait, 1849, 1862
 Drusus, Marcus, trileme, 1832
 Drusus, M. Livius (L), opposition to Germanicus, 1703
 Drusus, M. Livius (S), 1771–72
 Dryden, John, and classicalism, 4014
 — portrait, 4933
 Dryopithecus, tree-ape, 175
 Dualism, in Christianity, 2090
 — Manichaeism, 2333, 2331
 — in Mithraism, 2090
 — S. Augustine's theory, 3023
 Dublin-Makh, sculptures from, 530–7
 — shrine, Ur, 530
 Dublin, street-fighting (1921), 1900
 Dubois, Eugène, discovery of Pithecanthropus, 151
 Dubols, François, Massacro of S. Bartholomew, 3466
 Duca, II : see Mussolini, Benito
 Duok, in Egyptian painting, plate f.p. 553
 Duok Dance, of Eskimo, 213
 Duoreux, portrait of Louis XVI, 4088
 Dudevart, Armandine : see Sand, G.
 Duckhalls, Hittite king, 737
 Dudley, Sir John, sent against pirates, 3803
 Dual Attack, methods, 4813
 Duel, in England, 4236
 — in Gaul, 1513
 — prohibited by Gustavus Adolphus, 3613
 Dueros Vase, inscription, 1756, 1757
 Dufferin, Marquess of, viceroy of India, 4770
 Dug-out, ancient Egyptian, 501
 — on Bosphorus, 2177
 — in Neolithic times, 292
 Duhokin, General, death, 4951
 Duma, Brat, 1442, 1943
 — last, 4946, 4948
 Dumgoyne Hill, ancient volcano, 102
 Dumont, P. E. L., colleague of M'Abreau, 4108
 Dumont, Santos, early flights, 4737
 Dumouriez, C. F., and Danton, 1174
 — portrait, 4087
 — royalist plot, 4000
 — victor at Valmy, 4087
 Dunbar, battle of, 3728
 — medal commemorating, 3729
 Dunbar, James, philosophy, 4001
 Dundas, Lord, and Synnington's steamer 4353
 Dundee, Viscount (Graham of Claverhouse), portrait, 3749
 — rebellion and death, 3746
 Dundonald, 10th Earl of, commands Chilian navy, 4323, 4324
 Dungal, Irish monk, 2086
 Duugi, king of Ur, 432
 — bearing mortar-baskel, 529
 Duukirk, acquired by France, 3741
 Dunsany, Lord, plays and stories, 5019
 Duns Scotus, 2089, 3819

Dunstable, medieval ecclesiastical library in, 4123
 Dunstable, John, musical work, 2964
 Dunstan, Archb. of Canterbury, 2507
 — in old MS., 2506
 Dunwich, coast erosion, 30
 Duphot, French general, assassination, 4133
 Duplex, François, 3889, 3896
 — recalled, 4897
 Duquesne, Admiral, expedition against pirates, 3806
 Durani Monarchy, foundation, 3796
 Durazzo, Cansur at, 1733
 — Norman conquest, 2051
 — Slavonic attack, 2479
 Durban, founded (1835), 4618
 D'Urban, Sir Benjamin, governor of Cape Colony, 4617, 4618
 Durenstein Castle, Richard I imprisoned, 2746
 Dürer, Albrecht, and anatomy, 5010
 — house at Nuremberg, 3433
 — Maximilian I by, 3296
 — Melanconia, 3251
 — Sigismund, 3135
 Durham, ownership of county, 2708
 Durham Cathedral, architecture, 2710–1
 — Beilo's tomb, 2366
 — Galilee chapel, 2718
 Durham, 1st Earl of, in Canada, 4693
 — report, 4693
 Durness, Inverness, 95, 96
 Durrw, Celtic cross, 2674
 — monastery, 2670
 Dushara, king of Mitanni, 666, 731
 — death, 739
 Disseldorf, allied troops in (1921), 4012
 Dutch, in America, 3546
 — British rivalry, 3550
 — in Doshina Island, 3604
 — independence won, 3468, 3470
 — republic founded, 3580
 — S. American trade, 3545
 — Spice Islands acquired, 3546
 See also Holland; Netherlands
 Dwarf, stature, 177
 Dwellings, primitive, 288–89
 Dwyarky, in British India, 1901
 Dyzel, Babylonian, 582
 — medieval, 2926
 Dying Gaul, formerly Dying Gladiator, 1627
 Dymanes, Dorion tribe, 983
 Dynamics, Galileo on, 3822
 — Newton on, 3827
 Dynamio, commercial uses, 4705
 — Parady's, 4701
 — Gramme's, 1705, 4706
 Dyrachium, Caesar's army at, 1733
 Dzerzhinsky, Felix, Russian revolutionary, 4951
 — economic failure, 5077
 — head of Che-ka, 4958, 4959
 — and Russian railways, 4971

E

Ea, or Enki, Babylonian god, 583, 971, 979
 — creative 'word' of, 613, 611
 Eadriith, (Gospels illuminated, plate, f.p. 2155)
 Eads, Capt. J. and Mississippi navigation, 4498
 Eadwyne, Psalter of, 2708, 2720, 2969
 Eadstan, Bishop, and Daues, 2123
 Ealdred, Archb. of York, 2707
 — crown William I, 2713
 Eannatum, king of Lagash, 430, 527
 — and Ningsin, 650
 — religious duties, 581
 Eannes, Gil, explores African coast, 3520
 Earl, Anglo-Saxon, 2452–54
 Earrings, Carthaginian, 1623
 — from Troy, 360
 — gold, from Ur, 517
 Earth, age of, 42–44, 76
 — Aristotle's conception, 1182
 — crustal movements, 80–1, 90, 101, 101
 — 106, 109–10, 132
 — distance from sun, Aristarchus on, 2033, 2061
 — globe form, demonstration, 3301

Earth

Earth—*cont.*
 —Greek measurements, 2072, 2073, 2075
 —making, 79, 80–110, chart *f.p.* 96
 —Platonic representation of, 2075
 —Pythagorean conception, 1173
 —rotation, 1181, 2003, 2081
See also World
Earthly Paradise, The, Ming p'g., 3522
Earthwork, at Avebury, 621
 —Seydlitz, 931
 —at Stonehenge, 627
See also Barrow Tombs
East, Near, commerce, medieval, 2908
 —division in 2nd cent. n.c., 1855
 —empires, 1580–900 B.C., map, 658
 —kingdoms & peoples, 900–550 n.c., map, 874
 —rival medieval powers, 2003
See also Asia Minor and specific countries
East, Far, earliest glimpses, 1083
 —commerce, medieval, 2908–09
 —English and Dutch enterprise, 411
 —Hellenism, spread to, 1491–1506
 —medieval conditions, 2959
 —religions, 6th cent. n.c., 1203
 —in Roman times, 2053
 —Roman trade with, 2135
 —trade routes, medieval, 2910, 2912, map, 2913
See also Asia and specific countries
East Anglia, Danish conquest, 2407
See also Angles; Danes; Saxons; etc., and under England
Eastar, controversy, 2082
Easter Island, inscriptions, 36, 1065
 —stone statues, 291, 295
Eastern Civilization, and Western, 1183
See also Asia and specific countries
Eastern (Orthodox) Church; *see* Greek Church
East India Company, at Canton, 18th cent., 4063
 —corruption of officials, 4504
 —legal sanction for, 3905
 —Moguls and, 4343
 —powers taken by Crown, 4405
 —trades in service, 4627
East India Company (Dutch), at Cape of Good Hope, 3561
East India Company (French), 3840
East India House, from 1048–1720, 4441
Eastern Roman Empire, 2191–2208, 2255–69, 2201–07, 2272–74, 2352–55
 —Christianity in, 2125–28, 2200
 —under Constantine II, 2352–53
 —under Constantine the Great, 2128, 2101
 —Constantinople the capital, 2128, 2211
 —Islam and, 2345, 2347, 2350–51
 —under Justinian, 2261, 2203–07, 2270, 2272, 2287–2305
 —Persian Wars, 2203–05, 2207, 2273–74, 2312, 2315
See also Byzantine Empire; Rome
East Mark, a duchy, 2730
Eaton, buccancer, 3810
Ebert, Karl, fall of government, 4010
 —reparations, 4892
Ebionites, 2329
Eboli, Pietro d', 2701–05
Ebro, river, 1570–80
Ebroin, rule and murder, 2354
Ecbatana, conquest by Alex., 1407
Eccellin da Romagna, 2824–25
Ecclesiastes, Book of, 1952
Ecclesiastical, Book of, 1951
Echmiadzin, church of S. Hripsime, 2341
Eck, Johann, 2352
Eclipse, (Greek discoveries), 2081
Ecumenus, battle of, 1038
Economies, in Elizabethan age, 3551
 —feminist movement and, 358
 —in France (17th cent.), 3845
 —in history, 387–90
 —medieval, 3314
 —Nep' in Bolshevik Russia, 4970
 —the philosophes and, 4127
 —of socialism, 4977
Economists and trade nations, 4082
Ecuador, long-headed types, 215
 —progress in, 4332

Ecuador—*cont.*
 —Quito, 3333
Edaphosaurus, early reptile, 118
Eddas, Icelandic, carvings of, 2517
Eddington, Arthur Stanley, 5001
 —indeterminacy principle, 5008
Eden, Garden of, significance, 221, 304
Edessa, Christian college, 2311
 —cradle of East. Christianity, 2176
 —Crusaders lose, 2651
 —medical learning preserved, 5040
 —Latin State under Crusaders, 2708
 —Turkish capture, 2705
Edfu, temple of Horus, 1018
Edgar, king, 2106, 2467
Edgar the Atheling, 2615
Edinburgh, centre of radicalism, 1433
 —medical school, 5046
Edison, T. A., electric lamps, 1706, 4707
 —phonograph, 1706, 1710
Edmund, S. and king, coronation, 2173
 —slain by Danes, 2497
Edmund, a. of Henry III of England, Sicilian crown offered, 2825
Edom, conquered by Amuziah, 826
 —conquest by Jews, 1959
 —Petra a city of, 825
 —Seti I, tribes attack, 668
 —tribute to Shamsu-Adad V, 881
Education, under Akbar, 3758
 —Aztec regime and, 3377
 —in colonial America, 4017
 —in 18th-century England, 1244–47
 —Germany, 3952
 —effect on trade unionism, 4074
 —German advantages, 4441
 —and the Illumination, 3049
 —Greek and mod. ideas of State, 1508
 —of Indian natives, 4457, 4471
 —in Japan, 4118
 —medical, reform, 5046
 —in modern France, 4154
 —monastic services to, 2230–81
 —under Napoleon I, 4099
 —Pastoral on, 4075
 —of Red Indians, 4500
 —Renaissance and, 3210–20, 3336
 —under Romans, 2095, 2249
 —10th cent. severity, 3150
 —supplied by Jesuits, 3089
 —Tudor, 3490, 3500
 —of women, Maurice and, 4408
See also Schools
Edward the Confessor, 2508–09, 2708
 —Church reforms, 2731
Edward I, of England, 2995, 2996–97
 —conflict with Boniface VIII, 2832
 —consolidation of kingdom, 2828, 2996
 —on Crusade, 2805, 2827
 —French relations, 2831–32, 2995
 —in House of Lords, 2832
 —papal relations, 2831–32, 2833, 2995
 —and piracy, 3803
 —and Scotland, 2830, 2996
Edward II, of England, 2995, 2997
Edward III, of England, archery regulations, 2949
 —Calais burghers surrender, 3002
 —claim to French crown and wars, 2996–97
 —crown jewels pawned, 3058
 —David II and, 2007, 2998
 —death, 3002
 —French royal arms adopted, 3082–83
 —Flemish alliance, 3082
 —Hanseatic League and, 3068
 —homage for French lands, 2995
 —Hundred Years' War, 2996–3002
 —Order of the Garter founded, 2977
 —Parliament under, 3003
 —and power of the Church, 301
Edward VI, of England, coronation procession, 3450
 —Latimer preaching before, 3501
Edward VII, 4573, 4579
 —in Ottawa, 4606
 —at Suez Canal works, 4557
Edward, the Black Prince, 2940, 2998, 2999, 3001
 —suroat, 2932, 2933
Edwards, Jonathan, logician, 4018, 4076
Edwin, king of Northumbria, 2272, 2459
Egbert, king of Wessex, 2423
 —supremacy of Wessex under, 2410
Eger, Wallenstein murdered at, 3597

Egypt

Egi, depicted on Franks' Casket, 2457
Eglantine, Fabre d', execution, 4175
 —revolutionary calendar, 1135
Egmont, Count of, Dutch freedom efforts, 3467, 3469
 —execution, 3468, 3469
 —portrait, 3467
Egypt, Ancient, absorption of conquerors, 1005
 —agriculture basis of society, 481
 —Alexander the Gr. in, 1438–39
 —after Alexander, map, 7582
 —Assyrian conquest, 831, 1015
 —Babarian culture, 37, 58, 450, 461
 —Bubastite dynasty, 882
 —calendar computed, 422
 —Cambyses conquers, 1087–88
 —canal to Red Sea, 1088–89
 —cereals, first introduction, 462
 —civilization, rise of, 459–64
 —copper in, origin of, 462
 —Crete, relations with, 468, 469, 361, 596, 598, 757, 758, 1539
 —decadence, 1005–1030
 —dolmen and mastaba, 621
 —domestic animals, 486
 —dynastic invaders, 422, 462
 —society in, 499, 500
 —dynasties, 1012, 1015, table, 417–8
 —earliest burials, 461
 —handstone working, 462
 —early home of inventions, 219
 —Empire, incense from Pant, 353, 679
 —history, 050–75
 —life and art in, 078–712
 —map, 650
 —rise and fall, plate *f.p.* 102, 657–71, 670–712
 —ships of, 353
 —soldiers of Hatshepsut, 631
 —flanged chisel introduced, 33
 —gold as liquid of Ra, 359
 —Greek trade with, 1541
 —hair fashions, 39, 552, 678
 —hammer, heated, introduced, 33
 —history, date of dawn, 421
 —earliest sources, 423
 —Hittites and, 720
 —Hyksos invasion, 434–36, 057
 —influence on Jewish pottery, 813
 —surrounding peoples, 1005
 —inhabitants, earliest, 462
 —invaders of, 422, 462, 793, 1005
 —iron introduced, 804
 —in Old and Middle Kingdoms, 654
 —irrigation, 428, 486, 488, 540
 —Israelitish captivity in, 812
 —Jewish colony in 580 B.C., 833, 1945
 —kingship in, 221, 354–55, 353, 495, 648, 650
 —Libyan rulers, 22nd D., 1015
 —limestone first used, 425
 —maritime adventure, incentive to, 353
 —medicine and surgery in, 5030
 —Mesopotamia contrasted with, 224, 507
 —Middle Kingdom, feudal age, 543
 —history, 427–29
 —immigrants, 547
 —labour, division, 555–66
 —legal code, 544
 —life in, 543, 544–66
 —nobles' life, 543, 547–49, 553–54
 —pastimes in, 547–49, 553–54
 —ships, 465
 —slaves under, 547
 —unity of, 421, 423, 544
 —music in, 2957
 —Myceanean intercourse, 787
 —Neolithic burial, 618
 —arrows and knife, 492
 —bracelets from, 273, 275
 —relics undiscovered in, 450
 —New Kingdom: *see* Empire, above
 —New Peoples' coalition, map, 795
 —nomads, 498, 498, 543
 —Old Kingdom central government, 498, 498
 —history, 421–27

Egypt, Ancient—*cont.*

- land-tenure by women, 372
- life and culture, 473–509
- local government, 496
- noblemen's retinue, 499
- organized religion, 638
- women's status in, 372, 578
- oldest culture, 450
- Orientalism of, 1198
- Persian conquest, 1016, 1088, 1232
- Phoenician debts to, 1007, 1008, 1026–28
- ports, 467, 561
- plough, 346
- pre-Dynastic*, Asiatic bread in, 462
- corn storage in, 463
- date of era, 123
- map, 167
- men, 35, 489
- pastimes, 481–85
- ship, 36
- tools and weapons, 34
- warriors, 485
- priesthood, ruins, 21st dynasty, 075
- Ptolemaic art and life, 1013, 1024
- pyramid field, map, 503 : *see also* Egyptian Architecture
- racial affinities, 308
- religious revolution of Akhnaton, 739
- Roman, under Augustus, 1843, 1844, 1860
- canal to Red Sea, 1983
- Christian persecutions in, 2188
- conquest, 407
- corn from, 1860
- defence measures, 1983
- domination, 1003
- protectorate, 1080
- trade with, 1643, 1988
- war with Cleopatra, 1786–93
- Saite* and post-*Saite*, 1010, 1020–21
- Christian and Moslem in, 1006
- Cyprus occupied, 1014
- Greek soldiers in army, 1003
- sea power, 1013
- shaving, fashion of, 489
- society, early, 221
- solar year determined, 302
- Sumerian antiquity compared, 450
- timber from Lebanon, 423, 467
- tools and weapons, style persistence, 34
- tug-of-war for mummy, 353
- two kingdoms, establishment, 422
- Upper and Lower, 422, 481–3, 493
- separated, 882
- unification, 441
- vineyards in, 488
- world culture diffusion centre, 2000

Egyptian architecture, Akhnaton period, 747–48

- Empire* (18th dyn.), 691–96
- domestic, 681–8, 688, 697
- mastaba tomb, 490–91, 593
- Middle Kingdom*, 515
- domestic, 489, 550, 551
- Nubian, 1010
- Old Kingdom*, 491
- Ptolemaic, 1018
- pyramids, 504–509
- evolution, 603
- Nubian, 1009
- Lomb development in, 402

Egyptian art, Akhnaton period, 740–46, 750–53

- fresco painting, 713–46, 749
- Coptic and Ethiopian survivals, 1030
- Book of the Dead (18th dyn.), 651
- Empire*, 697–701, 704, 706
- fresco painting, 672, 681, 707, 710–11
- Graeco-Roman, 1030
- Greek compared with, 1190–97
- influence, 1025
- human figure in, 501, 602
- influence on Persian, 1029
- key pattern motive, 33
- Middle Kingdom*, 518, 563
- fresco painting, plates *f. pp.* 562–63, 553–57
- tomb models, 549, 560, 560–1

Egyptian art—*cont.*

- Nankratia, 1011
- Nubian, 1009, 1011
- Old Kingdom*, 487, 491, 496–99, 501–03
- Phoenician reproductions, 1007, 1008, 1027–29
- pottery, changes in, 30, 31, 462
- imitated in Palestine, 811
- pre-dynastic*, 36, 39, 462, 483–85, 492, 497, 500
- gold work, 358–60
- Ptolemaic, 1021
- qualities of, 1198
- Romans, 1025
- Saite*, 1016, 1019–21
- 7th and 8th cent., funerary objects, 1016–17

Egyptian Civilization, continuity and isolation, 1005

- influence on other races, 1006–07, 1017
- sequence of, 37–40
- See also* Egypt, Ancient and Egyptian Art

Egyptian Language, 1006, 1073

- prehistoric range, map, 321
- Egyptian Literature, 665–66, 652, 708
- Egyptian Religion, ancient, 638–51, 1108
- death, views of, 461, 649
- Divine cow, 363
- immortality, belief, 2036
- interconnexion with Greek, 2087
- Osiris worship in M. Kingdom, 540, 547

Egyptian sculpture, Akhnaton period, 741–42, 750–51, plate 753, 1189

- Empire*, 659, 670, 678, 689–90, 694, 706, 708–09
- and Greek compared, 1199
- Middle Kingdom*, 423–29, 519, 563–64, 1150
- Old Kingdom*, 420, 425–27, 473–80, 496, 498
- Saite*, 1019–21

Egyptian Writing, early, 36, 1073

- symbol and picture, 298
- Egypt, Medieval, commence, 2011
- Crusaders' objective, 2804
- Islam in, 1006
- Mamluk sultans, 2821
- Saracen conquest, 2347
- Turkish conquest effects, 410, 471
- Egypt, Modern, British occupation, 395, 4558
- reason for, 4636
- protectorate, 4753
- democracy a failure, 5081
- independent state, 4643
- under King Fund, 4000
- Napoleon and, 411, 1430, 4004, 4184
- steps to independence, 4637

Elrich, Paul, and syphilis, 6032

Eighteenth Century, England, life in, 4210–54

- Europe in (1713–80), 3877–3916
- Germany, life in, 3943–93
- thought of, 4048–76

Einhard, art patronage, 2143

- at Charlemagne's academy, 2138
- St. Gall monastery designed by, 2441
- Vita Caroli of, 2439

Einsiedeln, Abbey of, 3088

Einstein, Albert, 4764, 5009

- theory of relativity, 3827, 5009–10
- Eirene, sister of Boris Godunov, 3926

Ekaterinburg, murder of Tsar and family at, 4960, 4962

Ekreke, Hittite monuments at, 718

Elaeusa, possibly Hittite Uluca, 730

Elagabalus, emperor, 2010, 2111, 2112

Elah, son of Baasha, 819

Elam, ancient culture, 456

Ashurbanipal's campaign, 889, 890

Babylonian struggles with, 876, 882

Dugal conquers, 432

Babylonian's defeat of, 430

Egyptian artistic affinity, 493

Egypt invaded, 40

Enamelled tiles in architecture, 1145

Enemy of Sumerians, 521

India connexion with, 450

Indo-Sumerian link, 150

Language and writing, 1009

Elam—*cont.*

- Mandishan invades, 521
- mineral resources, 521
- painted pottery, 591
- people of, 1127
- Persian penetration, 456
- in reign of Amenhotep III, 665
- reign by Sennacherib, 887
- Sargon of Agade's defeat of, 431
- Shargalsharri's defeat of, 431
- Warad-Sin, King of Larsa, 573
- Elamite, Battle of, 4572
- Elba, Etruscan possession, 1160
- Napoleon at, plate *f. p.* 4691
- Napoleon, exile at, 4107, 4196–97
- Elbe, as frontier, 1872, 1981

El Bekri, works, 3230

El-Bersheh, rock-tombs of nobles, 513

Elche head, not Phoenician, 1633

El Djem, amphitheatre, 2055, 2057

El Dorado, origin of fantasy, 3306

—Kaleigh's map of, 3576

Eleanor of Aquitaine, marriages, 2059

—Lomb at Montevault, 2743

—ironworks founded by, 2963

Eleatic School, doctrines, 1451

Elezar, son of Aaron, 1052

Electoral Reform Act, Methodism and, 4200

Electors (of Empire), list, 3587

Electra, tragedy by Sophocles, 1352

Electricity, Faraday's discoveries, 4700

—Franklin and, 4708

—Gilbert's researches in, 3822

Electric Lighting, history, 4706

—incandescent lamps, 4706, 4707

—in U.S.A., 4736

Electro-magnetic Induction, Faraday's discovery, 4700

Electro-magnetism, and optics, 4702

Electron, not material, 5007

—theory, consequence of, 4701

—Thomson and, 5004

Element : *see* Atom

Elementary Education Act (1870), and public health, 5055

Elements, Four, Aristotle's theory, 1183

—diagram illus., 1474

—Greek theory of, 1453, 1474

—modern use, 1476

Elephant, ancestry, 133–34, 136–38

—cave-drawing, 199

—contests of, under Moguls, 3783

—evolution, 133, 139

—hunting game with, 2311

—in Mogul art, 3764, 3767, 3779

—prehistoric, club from thigh bone, 752, 245

—as tribute to Shalmaneser, 880

—in warfare, Carthage, 1637–38, 1661

—in India, used by Porus, 1111, 1445

—in Italy, used by Pyrrhus, 1572

—military efficacy, 3168, 3779

—in Persia, 2314

—at Yung Lo's manuscript, 3511

Elephantine, Jewish colony, 831, 1915

Eleusinian Mysteries, 1385

Elaeus, 1382–83

Elgin, Earl of, in Canada, 4501

El-Hakam II, built mosque at Cordova, 3271

Eliot, George, 4515, 4561

Eliot, Sir John, 3671, 3672

Eliot, T. S., defends tradition, 5016

Elis, Actollans and Dorians in, 988–89

Elisea : *see* Dido

Elixir of Life, search for, 352, 359, 361

Elizabeth, queen of Bohemia, 3649

Elizabeth, queen of England, 3501–04

—death, 3580

—death mask, 3481

—and ecclesiastical legislation, 3667

—excommunication, 3350

—forbids wool export, 3635

—foreign policy, 3468, 3475

—going to a wedding, 3552

—at the helm, 3570

—Ivan the Terrible and, 3924

—pugnant at Windsor Castle, 3502

—Parliament under, 3659

—and piracy, 3502, 3803

—plots against, 3555

—Pope condemned, 3550

—portraits, 366, 3471, 3484

Elizabeth—cont.

- returning thanks for Armada victory, 3480
- and Spain, 3400, 3460–70, 3475–76
- Elizabeth, emp. of Russia, 3888, 3930, 3938
- death, 3902
- loyalty to Fred. the Gr., 3898
- Elizabeth, w. of Zaccarias, 3861
- Elizabethan Age, costume, 3564, 3565
- drama, 3501
- expansion, 2963
- literature, 3501, 3712
- marriage etc., 3563
- pomp and pageantry, 3502
- Seneca's influence on, 1894
- See also Tudor Period
- El-Lahun, *see* Illahun
- Elladune, Battle of, 2423
- Ellis Island, immigrants at, 319
- Elora, the Kalasa, court, 2403
- rock-hewn temple, 2392
- Elmina, *see* St. George da Mina
- El-Mu'tamid, ruler of Sevilla, 3289
- Elonichthys, early lung fish, 114
- Elvira, Council of, 2173
- Ely, cathedral, 2892
- Emanipation, of slaves, in America, 4490, 4491
- in British Emp., 4460, 4503, 4599
- of women, 384–86, 3989
- Embalming, ritual based upon, 352, 355, 363
- Embankment, London, effect on malaria, 3110
- Embryo, development, 180
- Embryology, Harvey's work in, 3820
- Emden (ship), on Cocos Is., 4810
- Emetris, King, *see* Demetrius
- Emigration, of French nobility, 4141
- Japanese, 1124
- in 17th century, 4007
- to S. America, 4328
- Emm, Khalil, 2412, 2424
- Emma, Queen, wife of Canute, 2509
- Emmanuel (of Portugal), and new discoveries, 3533
- Empsdooms, coins celebrating healing malaria, 1475
- teaching, 47, 1453, 1474
- Empire, conception of, 397–414
- See also British, Holy Roman, Roman, etc.
- Empire of the Two Shores, 3302, 3303
- Empires, rise and fall of, plate f.p. 402
- Employers' Liability Acts, 393
- Emporia (Spain), 1180
- Emporia (Tripoli), 1181
- Empurias, Greeks & Spaniards in, 1032
- Ena Telegram, 4383
- Enamel work, Celtic, plates f.p. 1520–21
- Gothic, 2220
- Ming, 3521, 3524
- Renaissance, 3237
- Enclosures, in Tudor times, 3488–89
- significance, 4218
- Encyclopédie, 4083, 4128
- d'Alembert and, 4060
- difficulties of censorship, 4121
- illustrations from, 4115–16, 4128, 4359
- technical value, 4128
- Encyclopedists, influenced by Bacon, 3923
- Energy, conservation of, 4520, 4708
- the quantum theory, 5010
- Engelbert, S., archb., 2810, 2841
- Engel, Johann Jakob, German publisher, 3950
- Engels, Friedrich, 4235, 4439
- Engishan, Duc d', judicial murder, 4099, 1187
- portrait, 4097
- Engishan, Louis de Bourbon, Duc d'. *See* Louis, Prince
- Engineering, Egyptian, 703
- Roman, 2020, 2038, 2235
- Engineers, Amalgamated Society of, new model union, 4074
- England, agriculture, early, 2664, 2008, 2727
- 15th cent., 3435
- Anglo-Saxon, 2350, 2445–70
- invasions, 2440–49
- map, 2410
- organization, 2707

England—cont.

- place-names, 302
- slavery in, 2402–63
- barriage in, 2724, 3485
- Bronze Age in, 633–36, 1513
- burial customs, early, 634, 636, 2448
- cemeteries, ancient, 2440; map, 2450
- and China, 3523, 4620, 4653
- Christianity in, 2360, 2448, 2771, 3253
- See also* Church of England
- cliticism in, 4044
- coinage, early, 2708
- colonial expansion, 3526, 3540–51
- commerce, medieval, 2906, 2908
- scals, 3911
- with Portugal, 3057
- constitution, under Edw. I, 2828–30
- French admiral, 4126
- See also* Parliament
- costume, 12th century, 2721, 2725
- Danish, conquest, 2507–08
- Canute's conquest, 2605
- Christianity accepted, 2463
- invasions, 2423–25, 2463–64, 2406
- map, 2410
- place-names, map, 302
- settlement, 2605
- Viking raids, 2520, 2523
- education, 12th cent., 2720
- influence on German, 3949
- Edward I's work, 2828
- 18th century, 4210–54, plate f.p. 4218
- middle classes in, 4220–32
- exchequer, 12th cent., 2708
- fauna, glacial, 110
- feudalism in, 2666–68, 2720–21
- and France, possessions in, 2747–48; map, 3122
- wars, 2996–3002, 3128 3102
- geological history, 90–110
- guilds in, 3008
- in Hanoverian times, 4080, 4270
- Hanseatic League and, 3056–57
- industrial revolution in, 4342–61
- land tenure in, 2719–22
- Magna Carta, 2748, 2749
- manors in, 2730, 2732
- medieval, 3097–3102
- army in, 2710, 2400
- Christianity in, 3028
- clergy in, 2733
- cloth industry in, 2008, 2021–25
- commerce in, 2908
- dress in, 2721, 2726
- drinks in, 3442, 3444
- economics in, 2729
- fairs in, 2901, 2902
- music in, 2070
- social life in, 2728
- wool trade in, 2000
- See also* Middle Ages
- Merrie, pastoral life in, 3433
- middle classes, growth, 4425–39
- modernism in, 5013
- monasteries dissolved, 3358
- monasticism in, 2285, 2468
- municipal life in, 2725–26, 2730
- music in, 2905, 2966, 2970
- Napoleon's invasion plans, 4178
- national spirit, 408, 3007
- Navigation Act (1651), 411
- navy: *see* Navy, British
- 19th century in, 4432–39
- Norman, 2046, 2657, 2706–33
- Bayeux Tapestry, 2508, 2607, 2610, 2714
- castle and churches: *see* Norman architecture
- risings in, 2510, 2012
- pagan ornaments, 2448, plate f.p. 2454
- survivals in, 3263–3263
- patron saint of, 2481
- place-names in, 2451, map, 302
- population, 13th cent., 3415
- Protestantism in, 3499, 3503
- Reformation in, 3368
- religious spirit in, 2733, 3502
- Renaissance in, 3333, 3499
- Roman civilization in, 2014
- royal family, Saxon origin, 2452, 2658
- Scotland and, 2058, 2740, 3580, 3700
- sea power, 16th cent., 3479
- slavery in, 2451–53, 2462–65, 2720, 4593

England—cont.

- smallpox in, 3117
- socialist revival, 4987
- sovereignty in, 2452, 2723, 2731
- Spanish wars, 3479, 3539
- Stephen's reign, 2014
- trade unionism in, 4067
- travelling in, 2727, 3452
- trides of, at Caesar's invasion, 1834
- Tudor, 3484–3504, 3552–69
- merchant men in, 3491
- navy in, 3491, 3544–45, 3570
- sea power in, 3501
- succession question, 3460
- Victorian costume, plate f.p. 4423
- villages, medieval, 2670, 2671, 2727–28
- villainage in, 2728–30
- volcanoes, Ordovician, 94
- weaving in, 2720
- women, position of, 382, 385
- See also* Britain, Great Britain
- England, Church of, 3350
- constitution, 3342
- early 19th century, 4280
- foundation, 1566, 2647
- lay patronage in, 2732
- national mission, 4803
- Norman reforms, 2731–32
- at Reformation, 3350
- English Architecture, Decorated, 2890
- Early, 2896
- 18th cent., 4237–40
- Gothic, 2876, 2889–93, 2896
- modern, 5034
- Norman, 2609, 2706–07, 2709–12, 2715–19
- Perpendicular, 2801, 2896
- Saxon, 2458–60
- 16th cent., 3440, 3441
- Tudor, 2806, 3484, 3493–96, 3568–9
- English Channel, merchantmen in, 3491
- piracy in, 3802
- river beds in, 28
- English Language, 325–20
- early character, 2150
- Greek words in, 1883
- Grimm's Law in, 327
- in Japan, 4421
- Latin influence on, 1883, 1008, 2235, 2242
- use in Tudor times, 3500–01
- English Law, Anglo-Saxon, 2451, 2453, 2462–67
- Roman influence, 2158
- English Literature, 18th cent., 4211
- Latin influence on, 2244
- modernism and, 5013–22
- Norman influence, 2014
- poetry, 2244–46
- Tudor characteristics, 3501
- Victorian Age, 4535–52
- Wycliffe's trans. of Bible, 3074
- Enki: *see* Ea
- Enkidu, in Gilgamesh epic, 573, 586, 587
- Enkomi, crater from, 789
- Enli, Babylonian god, 583
- and creation of world, 644
- Deluge caused by, 588
- Enlilum, in Babylonian pantheon, 648
- Ennius Quintus, 1885
- Greek influence on, 1762
- use of Latin, 1881
- Ensignum, in Babylonian pantheon, 648
- Entemena, king of Lagash, 431
- silver vase of, 535, 537
- Entente Cordiale, 4573
- Entente, Little, 4883, 4930
- Enterprise, S.S., voyage to India, 4361
- E-nun-makh, shrine of Nannar, Ur, 629
- Enver Pasha, on Goeben, 4585, 4752
- Turkish collapse, 4884
- Enzell, name changed, 2318
- Enzib Mersaba, refounded Memphis, 424
- Enzo, s. of Fred. II, prisoner, 2763
- taken prisoner, 2764
- Eoanthropus: *see* Pittdown Man
- Eocene Period, 160, 161, plate f.p. 96
- feather palm, 109
- mammals in, 132–33, 163
- Eohippus, ancestor of horse, 132, 133
- Eolithic Period, plate f.p. 220
- Eoliths, oldest stone implements, 149, 153, 154, 242, 244

- Eorl** (earl) in Anglo-Saxon times, 2454
Eormeric: see *Itemmarie*
Epaminondas, 1249, 1399
 —on athletes, 1326
Epheus, library, 1893
 —temple of Artemis, 1366
Epheus, Council of, 2337-38
Epithalites: see *White Hina*
Epictetus, Stoic philosopher, 1905, 1907
Epicureanism, 1466, 1904
 —Democritus's influence on, 1471
 —Roman adoption, 1763, 1909
Epicurus, 1165, 1166
 —on godlessness, 1903
 —influence on Lucretius, 1888
 —rivalry with Zeno, 1909
Epicyclo Motion, diagram, 2081
Epidamnus, Coreyean colony, 1239
Epidaurus, Greek theatre, 1318, 1319
Epidemic Disease, 3103-10, 3114, 3415, 5011
 See also *Hack Death*; *Influenza*; *Plague*; *Yellow Fever*, etc.
Epigram, Greek, 1362
Epilepsy, Hippocratic treatise, 1177
Epipalaeolithic Age, 200, 245-60
Epiphenomenalism, Huxley's theory, 4532
Epipolae, Syracuse, 1251
Epirus, Macedonian Kingdom, 1405, 1604
 —status of king, 883
Epstein, Jacob, Paul Robeson, 5036
 —Rhina, 5036
 —Rock Drill, 5032
Equestrian Order, 1810, 2002
Equinoxes, Precession of, Hipparchus and, 2080
Equity, in English Law, 2192
Erasistratus, of Chios, physiology, 2001
Erasmus, Desiderius, 3330-32, 3331
Eratosthenes, Alexandrian writer, 2108
 —and Archimedes, 2060, 2069
 —map made after, 2074
 —measurement of earth, 2072, 2073
 —obliquity of the ecliptic, 2080
Erdosy, irregularities avenues, 624
Erech, Baunatun's conquest, 430-31
 —(Gigantes) king of, 573
 —temple of, 539
Erechthium, 1275, 1293
Ethbaal, King of Tyre, 820, 1078
Ethra, Persian expedition against, 1000
Erie the Red, in Greenland, 2527
Ermine Street, Roman road, 2236
Eros, Chinese derivations from, 1503
 —on Parthenon frieze, 1298
 —with Psyche, 1501
Eresion, coastal, in Suffolk, 28
Ertogru, Turkish leader, 2833, 3148, 3155
Eryops, prehistoric amphibian, 116
Eryx, 1573, 1577
 —temples and temple, 1577
Erzerum, captured by Russians, 4704
E-sagila, temple of Marduk, 570
Eurachaddon, conquest of Egypt, 831
 —death, 889
 —siege of, 888
 —viceroys of Babylonia, 888
Eschatology, medieval, 3019, 3014
Eschschbach, W. von, mine-ingenieur, 2007
Esdras, on Roll of Jerusalem, 1960
Eshmun, god of Carthage, 1024
Estimos, bone engraving, 2569
 —bear skin preparing, 213
 —boat (kayak), 201
 —bow, modern compound, 279, 281
 —clothing, 280
 —copper imitation of eelt, 287
 —chick dancer, 213
 —cutting, manner of, 214
 —ice-making method, 280
 —at fish hole, 335
 —group organization, 215
 —harpoon head, 219
 —hunting methods, 283-284
 —language, 323
 —long-headed early type, 214
 —pictorial records, 2574
 —settling on Arctic coast, 2568
 —sledge, 290
 —spear-thrower, use of, 270
 —summer and winter quarters, 283, 289
Esposal of the Adriatic, 3032
Es-Sadi, African historian, 3301
Essad Pasha, surrenders Senjar, 4581
Es-Saleh, Eyubid sultan, 2820-21
Essen, French enterpriser, 1923, 4913
Essex, in Peasants' Revolt, 3099, 3100
 —witches in, 3257, 3261
Essex, Countess of, with E. of Somerset, 3716
Essex, Earl of, at Cadiz, 3513
Essex, Earl of (Geoffrey de Mandeville), 2802
Essex, Thomas Cromwell, E. of: see *Cromwell*
Esta, House of, at Ferrara, 2765
Esta, Leonello d', portrait, 3211
Estonia, and anti-Bolsheviks, 4881
Estonian, where spoken, 326
Estus, Celtic god, 1522
E-tomen-an-ki, tower of Babel, 568, 949
Ethandune, Battle of, 2197
Ethelbert, of Kent, baptism, 2327
 —laws, 2453, 2462
 —marriage, 2371
 —St. Paul's, London, built by, 2169
Ethelred I (of Wessex), and James, 2197
Ethelred II, the Unready, and Danish invaders, 2507
 —laws, 2470
Ethelwulf, of Wessex, 2123
 —ring, 2423
Ether, first anaesthetic uses, 5049
Ethics, influence of Stoicism, 1763
 —post-war, 4873
Ethiopian Art, Egyptian influence, 1030
Eton College, dining hall, 1177
Etruria, 1151-75
 —Gauls and, 1252, 1511, 1691, 1008
 —Greeks and, 1094, 1105
 —history, early part in, 1094, 1095
 —practical state, 1518
 —Rome and, 1352, 1117, 1006
 —see power broken, 1230
Etruscan Architecture, 1157, 1162, 1911, 2030
Etruscan Art, 1160-75 1911-12
 —bronze, 1599
 —burial trus, 1159-60, 1165, 1170
 —bust, 1167, 1170
 —chariot, 1169
 —Chimera, in bronze, 1175
 —crescent painting, 1160, 1161, 1168-69, plates f.p. 1168-69
 —knife-blade, 32
 —metal work, 1161, 1163-66, 1171-75
 —methods, 1912
 —portrait of lady, 1912
 —portulature, 1171, 1911-12, 1920
 —Roman debt to, 1911, 1912
 —sarcophagi, 1171-73, 1912
 —spirit on mirror, 1560
 —tomb, 1150, 1157-58, 1164, 1172, 1201
Etruscan Language, 321, 807, 1154
 —conservation, 1158
 —influence on Latin, 1880
 —prehistoric range, map, 324
Etruscan League, 1154, 1597-98
 —failure, 1601
Etruscans, 1151-75, 1201, 1000
 —burial customs, 1156-60, 1170-73
 —Carthaginian alliance, 1182
 —and corsairs, 3802
 —earliest inscriptions, 1155, 1157
 —Orientalism and, 1202
 —and Philistines, 798
 —power in Italy, 1101, 1750
 —religious beliefs, 1158, 1161, 1911
 —rites and ceremonies, 1600
 —and Rome, 1107, 1596-1600, 1740
 —sea power, 1004
 —settlement and expansion, 798, 1151-53, 1597-98
 —superstitions, modern analogies, 349
 —tombs: see *under* *Etuscan Art*
Etruscan Sculpture, 1159, 1161, 1171-75, 1511, 1911, 1912
Euboea, Cycladic settlement, 770
Eucharist, early painting, 2180
 —Marinecan, 2334
Euclid, 2002
 —on optics, 2071
Eucratides, of Bactria, 1400, 1491
Eudes, Count of Paris: see *Odo*.
- Endo**, duke of Aquitaine, 2359
 —Rights Saracens, 2361
Eudocia, Byzantine, empress, 2618
Eudoxia, Liconia, empress, 2205, 2208
Eudoxus, of Chios, 1170
Eudoxus, of Cyzicus, voyages, 2071
Engene of Savoy, 3751, 3757
 —in Austrian service, 3751
 —at Blenheim, 3758
 —Turks beaten, 3877, 3880
Eugenics, Wallas on, 5000
Eugenius (A.N. 392), usurper, 2200
Eugenius IV., pope, 3136
 —and Council of Basel, 3138
 —and rights of exploration, 3530
Euhemerus, philosopher, 1715, 1877
Eumachia, priestess from Pompeii, 371
Eumaeus, 844, 817
 —description of farmstead, 839
 —hospitality to Odysseus, 841, 851
 —store of wine, 818
Eumenes I. of Pergamum, founds kingdom, 1585
Eumenes II. of Pergamum, 1600, 1093
 —altar built, 1699
 —hospitality to Macedon, 1691
Euclidean, The, by Aeschylus, 1350
Eumolus, in China, 2106, 3523
 —at Constantinople, 2024
Eunolia, in early China, 2178
Eupatrid families, 1017
Euphrosius, and Saracens, 2421
Euphrates basin, cradle of civilization, 421
 —course, 436, 455
 —delta and mouth, ancient, 420, 511
 —Egyptian boundary, 680
 —Roman boundary, 1367
 —Phoenicians 111 crosses, 402
Euphrates, vase painting of, 1178
Euphratism, 3501
Euphrosia, Greek poet, 1355
Eurasian grasslands, map, 436
Eurie, Visigothic king, 2208, 2257-50
Euripides, 1353, 4039
 —and Homer, 872
 —and later comedy, 1357
Europa, Aeneas's emulure: see *Aeneas*
 —balance of power, formula appears, 9205
 —barbarians in, 2210-22: see also *Goths*; *Illyns*; *Ostrogoths*; *Phoenicians*; *Vandals*
 —barbaric culture growth in, 901-910
 —Black Death and, 3129, 3131
 —Bronze Age, 340, 917, 619, 635, 908-24, plates, 925 and 928, 929, 936, chart, 907
 —Capitain emulure: see *Capitain*
 —after Carthaginian Empire, map, 2194
 —cave period, 142-44, 198-207, 215-206, plate f.p. 241
 —Christian powers in 15th cent., 2818
 —church power in, 3127
 —commerce, medieval, 2897, 2913, 3114, 3130
 —Cro-Magnon man, 193, 217: see also *Antiquarian Period*
 —Crusades and, 3114, 3425
 —civilization, spread of, 239, 210, 310
 —economic chaos after Great War 4905-12, 5081
 —18th century, map, 3875
 —in Roman Period, 132
 —epidemics and plagues, 3103-05
 —forests in, 226, 239, 310; maps, 343, 436
 —geography, early idea of, 1531, 1532
 —glacial period in, 186, 192-3, 191-5, plate f.p. 250
 —passing of, 216-17
 —Germanic peoples in, 2210-22
 —after Great War (map), 1876, 4917-37
 —in the Great War (map), 4744
 —Grimald man, 193, 217
 —Illyns in, 2205, 2200
 —Ice age in: see *Glacial period*, *above*
 —industry, medieval, 2017
 —intellectual activity, 15th cent., 3433
 —Irish influence, 74th cent., 2680
 —Iron Age in, 929-43, 1516
 —Introduction, southern, 801
 —lake-dwellers' culture, 266-68, 630-32
 —land bridges in Ice age, plate f.p. 220

Europe—cont.

- League of Nations and, 4917-37, 5062, 5066
 - leprosy in, 3111
 - life and manners, 13th to 16th cents., 3110-3457, 3279
 - — — 19th cent., 4279-55
 - — — Thirty Years' War, 3618-35
 - Magdalenian culture: *see* Magdalenian
 - medieval, 2212, map, 2110, 3319: *see further under* Middle Ages
 - megalithic builders, 269, 921-29, 990
 - — — Eastern origin, 1604
 - — — merchants and artisans in, 3418
 - — — middle classes, growth, 4439-42
 - — — Miocene Period, 133
 - — — modern, 2675, map, 2110
 - — — Mongol invasion, 3317
 - — — Napoleonic empire, map, 412, 1030
 - — — nationalism in: *see* Nationalism
 - — — Neolithic culture, 270-75, 611-16, 618-19, 636
 - — — N. African peoples in, 468
 - — — Palaeolithic man in, 193-207, 215-66
 - — — peasant life, 13th cent., 3126
 - — — pottery introduced, 270
 - — — prehistoric culture, evolution, charts, 220, 907
 - — — primitive man in, 113-54, 166-69, 187-196
 - — — — — modern type, origin and spread (maps), 196, 210, 230-31
 - — — in Reformation epoch, 3295-3317
 - — — Renaissance period, map, 3122
 - — — Roman influence, 1084-85
 - — — frontier line, 1983, 1985-87
 - — — Scythians in, 924, plates 925 and 926, 928-33
 - — — self-determination, national, 307, 4877, 4935
 - — — in 17th cent., map, 3738
 - — — Slavonic peoples in, 2471
 - — — social development, 3415, 3111
 - — — Stone Age, old, 198-207, 215-66
 - — — — — Neolithic, 270-75, 816, 914-17
 - — — trade routes, medieval, 2990
 - — — — — prehistoric, 906-09
 - — — in 20th cent., 6062-84
 - — — tribal organization in, 314
 - — — vegetation, map, 343
 - — — after Vienna Congress, map, 1253
 - — — after year of revolutions, map, 1364
 - — — yellow race in, 315
 - European Civilization, 240, 310, 1043
 - — — Alexander saves, 1440
 - — — Amble influence, 2540, 2542
 - — — — — Charlemagne's influence, 2439
 - — — — — Crusades' influence, 2813
 - — — — — Greek influence, 1587, 1555
 - — — — — growth of, Bronze and Iron Ages 903-14
 - — — — — Mahomedan influence, 3265, 3413
 - — — — — Mycenaean part in, 787
 - — — — — Moorish influence, 3291-92
 - — — — — Roman influence, 2351
 - *See also under* Aegean; Bronze Age; Greece; Neolithic; Palaeolithic; Rome, etc.
 - Eurotas, river, 1036
 - Eurybiades, at Salamis, 1183
 - Eurydice, w. of Philip Arrhidacus, 1412
 - Eurymedon, Athenian leader, 1244
 - Eurymedon, river, battle, 1290
 - Euryssaeus, tomb, Rome, 3822-23
 - Eurysthenes, ruler in Laconia, 983
 - Eusebius, of Caesarea, 2320, 2334
 - Eusebius, of Darylacon, 2338
 - Eusebius, of Nicomedia, 2335
 - Eustace, of Boulogne, 2975
 - Eustathia, captured by Jeronimus, 3813
 - Eustochium, friend of Jerome, 2324
 - Euthydemia, India, 1400
 - Euthydemus I, of Bactria, 1191
 - — — wars, 1490, 1586
 - Eutyphes, of Constantinople, on Nature of Christ, 2338
 - Eutycheus, exarch of Rayenna, 2359
 - Evagoras, Athenian relations, 1247-48
 - Evangelicalism, growth, 4281
 - — — and social reform, 4400
 - Evans, Sir Arthur, Cretan discoveries, 7, 602-5, 608-9, 758-62, 769-71
 - — — on Greek writing, 853
 - — — and shaft graves, 770
 - Eve, significance of giraffe, 300
 - Evelyn, John, on Catherine of Braganza, 3999
 - — — estate at Deptford, 3937
 - — — opinions, 4004, 4298
 - Evergreens, European areas, map, 343
 - Evolution, 4222, 4521
 - — — animal group-adaptations, 138-140
 - — — Darwin on, 304, 4527
 - — — — — fundamentalist view, 4867
 - — — — — ladder, zoological steps, 165
 - — — — — Punch cartoon, 1529
 - — — — — race differentiation stages, 308
 - — — — — Spencer's law, 4527
 - — — — — stellar, diagram showing, 62, 63
 - — — Evora, Roman temple, 2066
 - — — Eweis Harold, Norman castle, 2716
 - — — Examination system, Chinese, 4651
 - — — Excavation: *see* Archaeology and special countries
 - Exchange, medium of, 292
 - Exchanges, collapse (1921), 1909, 2915
 - Exchequer, 12th century, 2708
 - Execution Dock, Wapping, pirate hanged at, 3878
 - Exeter, in Roman times, 2117
 - Exeter Cathedral, 2590
 - — — Gothic keystone, 2884
 - — — — — minstrel's gallery, 2963
 - Exiguus, Dionysius, decrees, 3018
 - Exmouth, Lord, and Dey of Algiers, 3507
 - Exodus, The, 800, 1007
 - — — Josephus on, 811
 - Exodus, Book of, on the oppression, 815
 - Expeditionary Force, transport, 4713
 - Exploration, African, 3392, 4611, 4618, 4631
 - — — American, Columbus, 3145, 3526, 3531-32
 - — — Australasian, 4608
 - — — Elizabethan, 3570-76
 - — — general account, 16th and 17th cents., 3527-51, map, 3526
 - — — Influence of gold on, 364
 - — — Portuguese, 3134, 3396, 3399, 3529-38
 - — — Russian, map, 3918, 3923-24, 3929
 - Explosives, war time discoveries, 1786
 - Export Trade, (1010-13), table, 4037
 - Eyok, Jan van, Jean Amielini, with wife, 2905, 2906
 - Eye, paint for, anc. Egypt, 480, 403
 - — — Rufus of Ephesus on, 2072
 - Eyrol, abbot, 2443
 - Eyubid, dynasty, 2744
 - Eyuk, sculptured procession at, 721
 - Ezekiel, 1046
 - — — — — imaginary temple, 818
 - E-zida, temple of Nabu, 569
 - Ezra, the Scribe, 1944
 - — — — — teaching of the Law, 1050
 - Ezra, Book of, 1914
- F**
- Fabian, pope, martyrdom, 2186
 - Fabian Society, founded, 4087
 - Fabi, gens, clan titles, 1045
 - Fabius Guatator, strategy, 1590, 1058
 - Fabrieus, Harvey a pupil, 5041
 - Fabricius, L., builds bridge, 2037
 - Factories, children in, 4220, 4361, 4404
 - — — Colbert establishes, 3818
 - — — inspection of, 4361
 - — — legislation, 4273
 - — — Owen's model, 4400
 - — — — — Russian, 4940, 4903
 - — — at U.S., 531
 - — — — — in U.S.A., 4407, 4498, 4500
 - — — — — war importance, plate f.p. 4772, 4790
 - Factory Acts, 392
 - — — early, 4361
 - — — — — John Bright and, 4534
 - Factory System, 4360
 - Fa Hien, Chinese pilgrim, 2209, 3515
 - — — writings, 2397, 2551
 - Faleno, Egyptian, 1026, 1027, 3237
 - — — Greek, 1020, 1027
 - — — — — Minoan III, Middle, 608
 - — — — — Phoenician, 1020, 1027
 - Fairbairn, mill machinery, 4359
 - Fair, Medieval, 2000-04
 - Faith, Clement's definition, 2005
 - — — Luther's teachings, 3340-48
 - Faith Cures, in Greece, 1370
 - Falaise, castle, 2692
 - — — treaty, 2740
 - Falcand, Ugo, writings, 2696, 2701-3
 - Faleon, Egyptian, 480
 - Falconry, 11th cent., 3127
 - Faliero, Marino, conspiracy of, 3015
 - Faliscan Dialect, 1850
 - Falkenhayn, Erich von, German general, in the Carpathians, 1766
 - Falkirk, Battle of, 2049
 - Falkland Islands, battle of the, 4939
 - Felling Sickness: *see* Epilepsy
 - False Decretals: *see* Forged Decretals
 - Famagusta, view, 2814
 - Familist, Stuart engraving, 3713
 - Family, in China, 238, 5061
 - — — primitive, 45, 312
 - — — — — Roman ideas and influence, 2162, 2248-49
 - Family Compact, (1733), 3884
 - Famine, China, recurrence, 4646, 5069
 - — — in France (17th century), 3855
 - — — before French Revolution, 4130
 - — — in India, Brit. relief, 4471, 4472
 - — — in Russia, 4957, 4971
 - Fanoul Hall, Boston, Mass., 1036
 - Fannia, w. of Icelidius Priapus, 2005
 - Fara, formerly Shumupak, 588
 - Faraday, Michael, 1700
 - — — dynamo, 4701
 - Far East: *see* East, The
 - Farm-Blog, in American politics, 4515
 - Farming, in American colonies, 4011
 - — — Anglo-Saxon, 2444
 - — — in England, medieval, 3433
 - — — in Greece, 2929
 - — — in lake villages, 631
 - — — Mesopotamian, 331
 - — — in Middle Ages, 2621-22, 3445
 - — — Roman, 2020
 - — — in Russia, 4976
 - — — in U.S.A. (Southern States), 4490
 - *See also* Agriculture
 - Fernese, Alexander, Duke of Parma, 3473, 3476
 - Fernese, Elizabeth, and Alberoni, 3580
 - — — marries Philip V of Spain, 3880
 - Fescies, Roman, 1700, 1707
 - — — Vettulianus, 1155
 - Fascism, in Italy, 4896, 4936
 - — — Mussolini with chiefs of staff, 5050
 - Fascists, comparison with plebs, 1647
 - Fashion, in Elizabethan London, 3502
 - — — prehistoric, 143
 - *See also* Costume; Women
 - Fashoda, French occupation, 4371
 - Fatehpur Sikri, 3770,
 - — — Akbar building, 3769
 - — — Akbar's Gate of Victory, 3785
 - — — sultana's bathing tank, 3770
 - Fates, Three, on Parthenon, 4294
 - Fathers of the Church, 2319-27
 - — — dislike of astrology, 2082
 - Fatimid dynasty, 2780
 - — — Abbasids supersede, 2411
 - — — art revival under, 2538
 - — — — — Byzantine alliance, 2640
 - — — — — learning patronised, 2530
 - — — — — luxurious life, 2538, 2540
 - — — — — Saladin suppresses, 2741, 2744
 - Faunus, rustic deity, 1744
 - Fausta, w. of Constantine the Gr., 2126
 - — — death, 2189
 - — — sons, 2193
 - Feustulus, 1595
 - Faunus Laperous, god, 1595
 - Faustine, w. of Antoninus, 29, 1902
 - Faversham, glass vessel from, 2458
 - — — old Eng. jewelry, plate f.p., 2454
 - Favre, Jules, and Third Republic, 1385
 - Fewkes, Guy, portrait, 3718
 - Fayum, The, fossil primates from, 103
 - — — — — migration, 428, 429, 546
 - Fear, psychological factor, 4700
 - Fear, god of, Alex. sacrifices to, 1411
 - Fechin, S., prayer for plague, 3105
 - Federal Reserve Bank (U.S.A.), 4725
 - Federal Trade Commission (U.S.A.), 4515
 - Federation of Labour, American, 4089
 - Federigo, d. of Urbino, and printing, 3188
 - Fehrbellin, battle of, 3750
 - Feisal, king of Iraq, 4642

- Felix V, Antipope, 3138
 Felix, bishop of Urgel, heresy, 2437
 Felix, gov. of Judea, and Claudius, 1855
 Fell, John, printing types, 3197
 Felsina, formerly Villanova, 1151
 Feltr, Vittorino de, 3219
 Feminism, 18th cent. England, 4216
 —in Middle Ages, 3988
 —and Politics, 3983
 Fénelon, François ds, 3811, 3861
 ——Mme. Guyon supported, 3868
 ——Jansenism attacked, 3868
 ——Louis XIV. opposed, 3814
 ——royal pupils, 3815
 Féog-shui, Chinese geomancy, 2555
 Feng Tuo, and printing, 2556-7, 2560
 Fengtien : see Mukden
 Fenni (tribe), Tacitus on, 2215
 Foodor, of Russia, 3580, 3761
 Ferdinand I, emperor, accession, 3459
 Ferdinand II, emperor, accession, 3597
 —and Bohemian succession, 3590
 —Protestantism suppressed, 3588
 Ferdinand III, emperor, military position, 3636
 —Protestants banned, 3633
 ——and Wallenstein, 3642, 3649
 Ferdinand I, emperor of Austria, 4274
 —abdication, 4369
 Ferdinand V, of Aragon, 3298, 3300
 —and Canary Isles, 3531
 —marriage, 3144
 See also Isabella of Castile
 Ferdinand, of Bulgaria, 4555, 4578, 4582
 Ferdinand III, of Castile, Moorish conquests, 2827, 3265
 Ferdinand VI, of Spain, 3862
 Ferdinand VII, of Spain, 4259, 4260-62
 —marriage and death, 4260
 Ferdinand I, of the Two Sicilies, flies to Sicily, 4094
 Ferdinand II, of the Two Sicilies, 4259
 —crushes rebels, 4369
 Ferdinand of Brunswick, in Seven Years' War, 3900
 Ferhail, abbot and bishop, 2081
 —theory of the universe, 2684
 Ferguson, Adam, philosophy, 4001
 Fern, fossil, 105
 Ferrara, commune of, 2758
 —culture at, 3248
 —under Este rule, 2765
 —France secures, 4093
 Ferrucio, Andrea, bust of Maraglio Fiesno, 3324
 Ferrucio, Francesco, portrait, 3205
 Fertility, Grecoan goddess, 605
 —Neolithic goddess, 270
 Festa dei Matrimoni (or delle Marie), 3036
 Fetishism, 235
 —in Dahomey, 236
 Feudalism, 2605, 2661-73, 3410
 —and aristocracy, 3417
 —bishops under, 3262, 3263
 —castle as symbol, 2443
 —Christendom saved, 3416
 —development, 2436, 2601
 —in Egypt, 543
 —in England, 2613, 2720-21, 4288
 —in Flanders, 3081
 —in France, 2507, 3854
 —in Italian cities, 3202
 —in Japan, 2980, 4113, 4414
 —knight service and, 2726
 —land tenure, 2662, 2719, 2721-22
 —and nationalism, 3600
 —in Normandy, 2608
 —in Scotland, 2658
 —servants under, 2433
 —urban influence, 3070
 Fenilade, La, and Turin disaster, 3907
 Fèvre, Le, disciple of Loyola, 3882
 Fian, John, trial for witchcraft, 3259
 Fihlæe : see Brooch
 Fichte, J. G., philosophy, 4293
 Fiesno, Maraglio, philosophy, 3324
 ——portrait, 3224
 Ficoroni Casket, eng., 1645, 1913, 1914
 Fidenæ, 1601
 Field, Cyrus, and Atlantic cable, 4698
 Fielden, John, and child labour, 4361
 Fielding, Henry, and Bow St. runners, 4215
 —Influence on German novel, 3950
 Fielding, Sir John, at Bow St., 4215
 Field of Cloth of Gold, Henry VIII at, 3308
 Fields, manorial, 2662, 2603, 2664
 Fionnes, Nathaniel, portrait, 3727
 Fiere, Battista, portrait, 3229
 Fiesole, Florence takes, 2759
 Fiesole, Mino da, tomb of Ugo ly, 2755
 Fifteenth Amendment (U.S.A.), 4492
 Fihmbster, derivation, 3809
 Fihphios, racial differentiation, 308
 —See also Philippine Islands
 Filmer, Sir Robert, Patriarcha, 3701
 Fimbria, campaign and death, 1774-75
 —Troy sacked, 366
 Fioance, Egyptian, 4037
 —French (16th century), 3583
 —(17th century), 3550
 —in French Revolution, 1137
 —Internationl, 5001
 —Mogul, 3780
 Finch, Sir John, portrait, 3722
 ——on royal power, 3721
 ——on royal power, 3721
 Finland, absorbed by Russia, 4564
 —Agrarians, 5072
 —new state, 1878, 4880
 —socialism in, 4088
 —state of war with Russia, 4881
 Fiano-Urgio, languages, 324-5, 327
 Fians, 232, 2215
 —Language, 326
 Fiore, Joachim of, teaching, 3013
 Fioricino, Niccolo (school), metal, 3298
 Firdausi, basia of epic Shahnama, 2313
 —Illustration to Book of Kings, 3708
 Firo, 5036
 —discovery, 280, 440
 —divinity, 1128, 1130-31
 —domestication, 348
 —elementary spirit, 1005
 —Greek theory, 1453
 —social significance, 188, 449
 —Stoic idea, 1465
 —symbolic meanings, 449
 —Zoroastrian idea, 2308
 Fire-altar, 1130
 Fire-making, 246, 286
 ——African tools for, 285
 ——Australian aborigines, 285
 ——among cave men, 246, 286
 ——among Pnegians, 286
 ——among Tanikros, 197
 Firearms, medieval, 2631, 2040-61
 —in 17th century, 3042
 See also Artillery ; Cannon ; Warfare
 Fire-Brigade, Roman, 1868, 2011
 Fire-pan, Egyptian, 702
 Fire Ship, at Constantinople, 2257
 ——Spanish Armada, 3544
 Fireworks, Italian invention, 3244
 Firoz Shah, reign, 2993
 Firoz Tughlak, Moslem emp. and Brahman literature, 3177
 ——and Brahman teacher, 3178
 ——prosperity under, 3172
 ——tomb at Delhi, 3168
 First Consul, Napoleon as, 4090
 First International, foundation, 4085
 Fish, appearance and evolution, 112-15
 —Christian symbol, 2189
 —Devonian, 100
 —ensign, Aegean boat, 467
 —fossil, 98, 100, 113-15
 —in Herole Age, 847
 —horses eat, lake village, 632
 Fish, Age of : see Devonian Period
 Fisher, Lord, as first sea lord, 1838
 Fisher, Andrew, premier of Australia, 4625
 Fishing, in Arctic regions, 335
 —devices, 282, 283, 284
 —in Egypt, 485, 547, 548
 —Magdalenian, bone hooks for, 283
 —poisons used, 284
 Fishing boats, Greek, 993
 Fiske, John, on the millennium, 5091
 Fitch, Ralph, journey to India, 3572
 Fitzgerald, Edward, translation of Omar, 2790
 Fitzherbert, Sir A., 'Boke of Husbandry', 2660
 —'Boke of Surveying', 3487
 Flume, dispute over, 4882, 4883
 Five Members, attempt to arrest, 3674
 Fjord, formation, 110
 Flaccus, Marcus T., Gracchus supported, 1768-9
 ——in Sicily, 1701
 Flaccus, Valerius, 1774
 Flaccus, Verrius, Encyclopaedia, 1506
 Flag, evolution, 350
 Flagellants, 3171
 Flail, or Egyptian goddess, 706
 —medieval weapon, 2822, 2930
 Flame-throwers, Greek, 2621
 Flamines, Roman priests, 1749
 Flaminian Circus, Rome, 2770
 Flaminian Way, 1581, 2039, 2035
 ——bridge over the Tiber, 2938, 2033
 ——Pons Malvius, 2038
 Flaminius, Gaius, Roman statesman, 1088, 1832
 ——and Flaminian Way, 1581
 ——Mannibae's victory over, 1657
 Flaminious, Titus Q., 1679, 1687
 Flanders, Artois and, 3082, 3085
 —commerce in, 2898, 2905-08, 3056
 —counts of, castle, 3082
 —England and, 2900, 3086
 —airs, 2901
 —feudalism, 3081
 —France and, 2882, 3081
 —Gothic architecture in, 2888, 2893, 2894, 3089
 —guilds, 2919
 —municipal government, 3086
 —prosperity, 2901
 —13th cent. risings, 3081, 3086
 Flavian, patriarch, killed at Synod (449) 2338-39
 Flavius Odoacrus, a Christian, 2177, 2182
 Flavius, Gnaeus, 1648
 Flax, in Egypt, 488, 562
 Flecker, James Elroy, poetry, 5019
 Flemings, settlement in England, 3501, 3503
 See also Flanders
 Fletcher, Giles, in Moscow, 3023
 Fletcher, R., tragedy, 3115
 Fleury, Cardinal, 3882, 3883-84
 Flint, Ahydos, heads from, 492
 —Egyptian knives, 492, 567
 —collets, 152-3, 242
 —Monterian working, 245-6
 —neolithic use, 271-3
 —obsidian a substitute, 607
 —palaeolithic implements, 244-7, 266
 —sickles, 285
 —Soluterian implements, 247, 248
 —Tardenoisian, 266
 Flint working, 37, 189
 ——Australian aborigines, 275
 ——at Brandon, 274, 275, 284
 ——in Mesopotamia, 613
 ——model of Grhae's Graves, 274
 Flint-lock, evolution, 2953-54
 Flogging, Byzantine, 2630, 2033-34
 Flokl, Viking, 2525
 Flood, Babylonian legends, 514, 539
 ——in Gilgamesh epic, 588
 Floralia, Cato's attitude to, 1836
 Florenes, 2754-50, 2764, 3139
 —banking in, 2916
 —Black Death in, 3100
 —campanile, 3236
 —Cathedral, 3236, 3238
 —Charles VIII enters, 3218
 —cloth industry, 2916, 2925
 —commerce, 2916
 —commune, 2762
 —costume, 3206
 —Guelphs in, 2759, 2764
 —Loggia de' Lanzi, 3208, 3213
 —Michelangelo's fortifications, 3227
 —Palazzo del Podesta, 3208
 —Palazzo Vecchio, 3208, 3213
 —Piazza della Signoria, 3208, 3213, 3244
 —Pisa and, 2916
 —podestà in, 2762
 —Ponte Vecchio, 2916
 —S. Croce, 3333
 —S. Lorenzo, 3229
 —Savonarola's execution, 3213
 —school of painting, 3040-41
 —Slona and, 3209
 —Via Cavour, 3218
 —view across the Arno, 2754

Florianus, b. of Tacitus, 2120
 Florus, literary works, 1897
 Florus, Gessius, gov. in Judaea, 1957
 Flute, origin, 206
 —in early Greece, 1281
 Flying Boat, war development, 1789
 Flying Corps, Royal, becomes Air Force, 1822
 Flying Dutchman, legend, 3118
 Foch, Ferdinand, made generalissimo, 4773, 4779
 —victory offensive, 4781
 —on war, 1449
 Foetus, evolutionary traces in, 183
 Foix, Gaston de, 3095, 3300
 —death at Ravenna, 3300
 Fonz, a spirit, 1736
 Fontainebleau, Treaty of (1744), 3893
 —(1784), 3013
 Fontanges, Duchesse de, poisoned, 3006
 Font de Gaume, drawings from, 218, 257, 259
 —paintings from, 259, plate, 361
 Fontenay, Battle of (811), 2123
 Fontenelle, on Origin of Fables, 1008
 Fontenoy, Battle of, anecdote, 3655
 —Marshall Saxe at, 3893
 Fontevrault, Plantagenet tombs, 2743
 Fontinalia, festival, 1743
 Food, in Babylonia, 572
 —in the Hecate Age, 847
 —unguo, for Egyptian mummy, 355
 —in Middle Ages, 3412
 —preparation, Middle Kingdom, 552
 —production, primitive, 232-236, 238-240
 —supply, French Revolution, 4130
 —variety of human, 331
 Fook, man and gorilla, 172, 171
 Football, origin, 351
 —in 18th century England, 4226, 4227
 Foreign Affairs, Dept. of, U.S.A., 4711
 Foreign Irish : see Ball-Gael
 Forests, 330, 337 330, 439
 —area map, 338
 —in China, 412
 —in early times, map, 436
 —in Europe, 226; map, 313
 —Jewish, 108, 105
 Forest Cantons, League, 3000
 Forest Laws, Norman, 2610, 2731
 Forged Decretals (890), 3010
 Fork, table, first appearance, 3442
 Forli, Melozzo da, school of, 'Monte-leitro' family, 3219
 Formosa, occupied by Dutch, 5525
 Formosus, Pope, 2770
 Fornista, John of, reputed author of 'Summer Is Iccumen in', 2966
 Fornication, in Bad ritual, 823
 Fort Duquesne, founded, 3807
 Fort Halifax, reconstruction, 4011
 Fortifications, primitive, 288
 —early development, Illyrians and Celts, 935, 937
 See also Camp; Castles; Trench; Walls
 Fortress of the Faith, 3073
 Fort Sumter, Confederates seize, 4390
 Fortuna, goddess, 1901
 Fortuna Panthea, 2002, 2095
 Fortunate Isles : see S. Brendan's Isle and Canary Islands
 Fortunate Isles, The, masque, 3715
 Fort William, Calcutta, the Black Hole, 3899
 Forum, The (Homanum), 1794, 1918, 2013-14, 2015-18
 —Curl, 1798
 —inscription, 1596, 1577
 —reliefs from, 1965
 —site of, 1595
 —site of Cæsar's pyre, 1788
 —Temple of Castor and Pollux, 1754
 —Saturn, 1800
 —Vesta, 1736, 1014
 —at Cincin, Algeria, 1982
 —at Cerasa, or Jewish, 1957, 2056-57
 —in Roman London, 2149
 —town-planning, 2057-58, 2150
 —Rome, of Augustus, 2000
 —of Nerva, 2000
 —Trajan's, 1928, 1968, 2000
 —of Vespasian, 2000

Forum Fortunae, Flaminian Way at, 1581
 Forum Trebonii, battle of, 2116
 Fossalta, Battle of, 2704
 Fossils, 92-110
 —anthropoid and human, 118-51
 155-5, 161-3, 166-9, 177-8
 Fothergill, John, Quaker doctor, 5043
 Foucauld, Charles de, soldier monk, 2630
 Foundation Sacrifice, 300
 Fountain, in Roman towns, 2011, 2049
 —Graeco-Roman, 2058
 Fountains Abbey, 2286, 2420
 Fouquet, Jean, Building of the Temple by, 3139
 —portrait of Charles VII, 3131
 —Louis XI, 3113
 Fourier, François, 388, 4980
 —school of socialism, 4070, 4081
 Fourier, J. B., and heat diffusion, 1699, 4790
 Four Power Treaty (1922), 1889
 Fourteen Points of President Wilson, 4918
 Fourteenth Amendment, and position of negroes, 1191
 Fourth Gospel : see John, Gospel of S.
 Fowl, introduced into Egypt, 186, 683
 Fowling, in Egypt, Middle Kingdom, 517, 548
 —pre-dynastic, in Egypt, 484, 483
 Fox, carved head, 213
 Fox, Charles James, 4212, 4220
 —and Warren Hastings, 3906
 —in Westminster election, 4282
 Fracastoro, Girolamo, 3114, 3115
 Frada, Satrap of Margiana, 1099
 Fragonard (the younger), a Revolutionary Committee, 415
 Frateries, Generali Shaw at, 4716
 Franco, introduction into France, 4138
 France, African colonies, 4029
 —allied industry in, 4786
 —American colonies helped, 3900
 —Annam acquired, 4550
 —army, 16th century, 2956
 —Anstrian war, 4377
 —Calvinism in, 301
 —Canadian settlements, 3518
 —classicism in, 4040
 —colonial expansion, 413
 —constitution under Louis XVIII, 4259
 —England, wars with (14th cent.), 3001
 —(15th cent.), 3128
 —(18th cent.), 411
 —and entente cordiale, 4573
 —airs, 2901
 —cultural influence, 2608
 —Flanders and, 3081
 —German influence, 3911, 3915
 —in Great Wnr, 4711-17, 4755, 4761-64, 1766-75, 4777-81
 —artillery attacks, 4805-09
 —opening campaign, 4797, 4798
 —Hanseatic League, 3037
 —Henry V, king, 3129
 —industrial system under Colbert, 3317
 —intellectual life, 18th century, 4059
 —and Italy, 3208, 3300
 —Jesuits expelled, 3689
 —under Louis XIV, 3833-74
 —Madagascar annexed, 4560
 —medieval, 3000-91, 3127-28, 3132
 —army, 2951, 2985
 —commerce, 2908
 —municipal life in, 2739
 —succession question, 2096
 —modern, 4275, 4280
 —economic conditions (1815), 4287
 —recovery, 4550
 —labour troubles, 4983
 —middle class power, 4439
 —third Revolution, 4363
 —monarchy founded, 2360, 2058
 —monasteries dissolved, 2286
 —Moorish invasions, 2361, 3265
 —Napoleonic, map, 412, 4091-1109
 —nationality attained, 408, 3608, 3611
 —Norman influence, 2603
 —Normen in, 2494-5
 —parliament, 2906, 3676
 —patron saint, 2481

France—cont.
 —population problems, 5033
 —racial elements, 308
 —religious wars, 391, 3461, 3463
 —romanticism in, 4311
 —royal demesne, map, 2837
 —Russian alliance (1895), 1562
 —Scottish alliance, 2831
 —Second Empire, 4372
 —Second Republic, 4371
 —and the Seven Years' War, 3901
 —socialism, 1987
 —Spain and, 3478, 3597
 —Third Republic, 4385
 —women (18th cent.), 383-84
 See also Franks; French Revolution; Gaul; Napoleon
 France, Bank of, foundation, 4138
 Franche Comté, invaded by Louis XIV, 3741
 Franchise, British extension, 5081
 —in England, 392
 —in Rome, 1807
 —in Russia, 4057
 Francis II, emperor, abdication, 408
 —accession, 4080
 —death, 4274
 —and Napoleon, 1189
 —resigns empire, 3634
 —signs peace at Leoben, 4183
 —Venice acquired, 4183
 Francis I, of France, 3301, 3681
 —children at Blois, 3259
 —College founded, 3336
 —and German Protestants, 3314
 —Italian conquests, 3300
 —and Mediterranean corsairs, 3539
 —at Pavia, 3310
 —tomb at St. Denis, 2936, 3701
 Francis II, of France, marriage to Mary, Q. of Scots, 3461
 —portrait, 3462
 Francis, S., of Assisi, 2284, 2740, 3112
 —death, painting by Giotto, 3333
 —poems ascribed to, 2907
 —teaching, 2778, 3072
 Francis, of Anjou, 3470
 —in Netherlands, 4473
 Franciscans, 2281, 3413, 3128
 —Irish by Matthew Paris, 3427
 —habit, 2280
 —and Papacy, 3003
 —settlement in Asia, 2914
 François Ferdinand, Archduke, at Sarajevo, 4587
 Francis Joseph, emperor of Austria, accession, 1369
 —portrait, 4769
 Francke, A. H., German pietist, 3040
 François Vase, 683, 1041
 Franco-Prussian War, 1782-89
 Frangipani, family, 2772, 2774
 —fortifications in Rome, 2776
 Frankfurt, Council of, 2488
 Frankfurt, Treaty of (1871), 4386
 Frankfurt-on-Main, Conference, 1371
 —French occupation (1920), 4888, 4911
 —German parliament at, 4308
 —Goethe's birthplace, 3970
 —Gustavus marches on, 5617
 —Roman bronze from, 737
 —trade during Thirty Years' War, 3635
 Frankinense, imported into Egypt, 679
 Franklin, Benjamin, and Declaration of Independence, 4031
 —on indentured servants, 4014
 —portrait, 4018
 Franks, under Charlemagne, 403
 —under Clovis, 2259
 —government, 2419
 —land system, 2662
 —Lombards and, 2487
 —Mayors of the Palace, 2269
 —under Merovingian Kings, 2263
 —modern use of term, 2660
 —origin, 2213, 2215
 —as Papal champions, 2486
 —settlement in Gaul, 405
 —warrior of time of Clovis, 2221
 Franks Casket, Northumbrian, 2446, 2457
 Fraternities, Medieval, 2923
 Fravartish : see Pharoics

Frazer, Sir James, on bear-cuts, 192
 — on leadership, 3083
Fredagode, w. of Chilpene, 2269
Frederick I (Barbarossa), emperor, 2057
 2735-38, 2976
 — crusader, 2739, 2743
 — death, 2743, 2976
 — election, 2660
 — figure in relief, 2736
 — Henry the Lion crushed, 2738
 — Italy invaded, 2737, 2760
 — at Legnano, 2761
 — Papacy, relations with, 2737-38
Frederick II, emperor, 2819, 2846, 2838-40
 — aims and ideas, 2843-44
 — birth, 2705
 — Bouvines, 2747
 — as crusader, 2810, 2844
 — and Crecules, 2843, 3113
 — death, 2826, 2830, 2844
 — empire under, 2835-40
 — estimate of, 2846
 — excommunications, 2820, 2824, 2840-41
 — Germany under, 2823-4, 2841
 — hunting box, 2834
 — intellectual revival under, 2841, 2842
 — Italian policy, 2761, 2823
 — as king of Jerusalem, 2820
 — marriage, 2820
 — Naples and Sicily under, 2746
 — Papacy, relations with, 2823-25, 2838, 2840
 — Shilly, rule in, 2746, 2842
 — as papal vassal, 2828
 — tomb at Palermo, 2844
 — as writer on alchemy, 2834
Frederick III, emperor, 3140
 — acoustic boast, 3119
 — marriage, 3141
 — and Order of St. George, 2976
Frederick I, German Emperor (1888), 4604, 4502
Frederick V, of Bohemia, the Winter King, 3591
 — elected King, 3637
 — joins Munster, 3639
 — expelled to Spain, 3719
Frederick I, of Brandenburg, 3136
Frederick III, of Brandenburg, becomes King of Prussia, 3750, 3751
Frederick I, of Denmark, 3913
Frederick III, of Denmark, defeated by Charles X, 3602
Frederick, of Hapsburg (c. 1313), as German king, 3003
Frederick, of Hesse-Cassel, becomes king of Sweden, 3886
Frederick I, of Prussia, 3700
Frederick II (the Great), of Prussia, 3880, 3889, 3895, 4913
 — Austrian lands won, 3895
 — and Berlin morality, 3908
 — Bohemia invaded, 3893
 — British-Norwegian alliance, 3890
 — death, 3913
 — on education, 3951
 — and Elizabeth I of Russia, 3938
 — and German literature, 3957
 — makes Prussia a military power, 3900
 — La Mettrie at court, 4002
 — Mirabeau with, 4166
 — palace at Potsdam, 3982
 — Prussia's debt to, 3980
 — reviewing troops, 3981
 — and Wolff, 3918
Frederick III, of Saxony, Luther protected, 3310, 3311
 — Wittenberg univ. founded, 3310
Frederick, of Sicily, flight for crown, 2831
Frederick, Prince of Wales, 4222
 — death, 4226
Frederick Henry, of Nassau, stadtholder, 3586
Frederick William, of Brandenburg, the Great Elector, 3601, 3602
 — resistance to France, 3742
 — work for Prussia, 3750
Frederick William I, of Prussia, 3751
 — Charles VI and, 3886
 — portrait, 3887
 — and Prussian army, 3888
Frederick William II, of Prussia, 3013, 3931

Frederick William III, of Prussia, 4101
 — character, 3982
 — death, 4271
 — and Mettenich, 4200
 — and Napoleon, 4101
Frederick William IV, of Prussia, 4271
 — constitution, 1366
 — and German crown, 4371
Fredrikshald, Charles XII at, 3881
Freedman's Bureau, 1490
Freedman, in Rome, 2003
Freedom, Greek and Roman ideas, 1037, 1041-42, 1761
 — Greek desire for, 1037
 — Roman device of, 1398
Free Entry, in France, 4119
Freeborn, E. A., portrait, 11
 — on Rome's power, 104
Free States, in ancient Rome, 1803
Free Thought, distribution, 4865
 — medieval, 3010, 3018
Free Trade, 4273, 4175-86
 — in Roman Empire, 2132
Free Will, Church Fathers and, 2082
 — determinism and, 1905
 — Johannes Scotus and, 2088
Freiburg, Bavarian defeated at, 3654
Freiburger, Michael, printer, 3160
Frejtas, Rapolan lands at, 4095, 4185
French Lighthouse, 2050
French, Sir John, arrival at Banlogue, 4743
Frouch Architectures, 2861-92
 — house-building, 15th cent., 3437
 — Renaissance, 3250, 3437
 — Versailles, 3338-9
French Disease, syphilis, 3115
French Language, under Louis XIV, 3811
 — origin, 2211
 — Roman influence, 1008
 — standardisation of, 3862
French Literature, under Louis XIV, 3860
 — poetic forms, 2211
 — Renaissance writers, 3334
 — troubadour period, 2065
 — 12th cent., 2301
French Revolution, 4079-91, 4113-56
 — causes, 702, 3874, 3915, 4439
 — England and, 3679, 4668
 — ethics and economics, 4113-56
 — foulness influence and, 383, 3903
 — and humanitarianism, 4390
 — industry crushed, 4288
 — men who made, 4167-77
 — origin in salons, 383
 — parliamentary reform delayed, 4431
 — return from Versailles, 381
Frontan, tribe, allies with Rome, 1005
Frere, Sir Bartle, in S. Africa, 4620
Frescoes, Egyptian, 547-8, plates f.p.p. 552-3, 555, 557, 561, 572, 581, 707, 710-11, 743
 — and Minova compared, 758
 — Etruscan, 1095, 1160, 1167-69, 1550
 — Late Minova, plate, 755, 758, 771
 — Middle Minova, plate, f.p. 608
 — from Mycenae, 787
 — Pompeian styles, 1035, 1937-39
 — Renaissance, 3227, 3329, 3332-3
 — Roman, 1033, 1035-36
 — in Shensi temple, 3520, 3521
 — from Thyrus, 786
Fret (ornament), origin in Egypt, 33
Freytag, Gustav, description of German town, 3970
Friars, 2284
 — medieval decay, 3064
 — See also Dominicans; Franciscans
Friar's Keel, Stonehenge, 625, 638
Friour, siege battery at, 4767
Friedland, battle of, 4101
Friedland, D. of: see Wallenstein
Friends of the People, 4429
Friends, Society of, Jordans, 4007
Friesland, tribe exterminated as witches, 3152
Frigate-bird, cult of, 201, 295
 — used for fishing, 281
Frio, Rio, water supply, 2016
Frisians, subdued by Charlemagne, 2520
Friuli, duchy, 2751

Frobisher, Martin, N.W. passage, 3571
 — piracy in Caribbean, 3542
 — portrait, 3572
Frogs, The, by Aristophanes, 1356
Froisart, Chronicles of, 2904, 2977
 — illness, nom. 3081-86, 3091-96, 3101, 3153
Fronde, The, 3599
 — battle of St. Antoine, 3599
 — Jansenist connection with, 3863
 — parliament in, 3670
Frontier, American life on, 4015
 — national significance, 300, 307
 — Roman problem, 1719-20, 1983, 2139
Frontinus, Julius, on aqueducts, 2010
Fronto, tutor of Marcus Aurelius, 2170
 — literary style, 1882, 1897
 — social position, 1903
Fronde, J. A., portrait, 4550
Fry, Elizabeth, and prison reform, 4100, 4101
Fry, Roger, Omega workshop, 5028
Fu, in Chinese literature, 2548
Fund, King of Egypt, 4000
Fuchs, Leonhard, drawing, 3341
Fuine Lake, combat on, 2024
 — draining of, 2029
Fugians, clothing, 280
 — Darwin's observations of, 311-13
 — fire-making, 286
 — Ona and Yaghnas, 312-13
Fu-Hai, fragments of, 1070
Fujiwara Period, in Japan, 2391
Fulk, of Anjou, 2038, 2051
 — King of Jerusalem, 2799
Fulter, Thomas, on Elizabethan age, 3553, 3708
 — on Puritans, 3707
Fulton, Robert, American steamboat, 4359
Fulvia, w. of Antony, death, 1791
Fundamentalism, 4864, 4867
Fundanus, Mianous, Hadrian's letter to, 2181
Funeral Customs: see Burial Customs; Cremation
Funeral Orations, Cicero on, 1501
Furris, The, Greek hand, 1192
 — in Greek religion, 1383
 — and Orestes, 1350, 1351
Furlo, Pass of, Mountian Way, 1581
Furnaces, ancient Egypt, plate f.p. 653
 — Dury's ironworks, 4343
Furniture, Babylonian, 572
 — Carthaginian chairs, 1629
 — Egyptian empire, 698-791
 — Middle Kingdom, 558, 560
 — English 18th century, 4236, 4248
 — German, 18th century, 3073
 — Greek Heraclea, 842
 — Norman bed, 2721
 — Tudor bed, 3442
 — in Ur, 593
Fursa, S., reputation, 2681
Furstenburg, 3013
Fust, Johann, with Gutenberg in printing, 3185
Futhore Alphabet: see Runes
Fyrd, 2013

G

Gabelle, salt tax, 3850, 4118
Gabinus, 1822, 1824
Gabriel, Archangel, instructing Mahomet, 2372
Gades: see Cadiz
Gaelic Language, 1507
 — eastern limit, map, 302
 — in Ireland, 2057, 2075
 — in Scotland, 330
Gaelic Poetry, 2081
Gaineborough, Thomas, portrait of Cornwallis, 3909
 — portrait of Pitt, 3911
 — sketch of a lady, 4231
Gaius, S. of Agrippa, 1817-48
Gaius Caezar: see Caligula
Gaius Julius Octavianus: see Augustus
Galactic System, of stars, 65, 5000
Galatier, in 18th century Germany, 3045
Galapagos Islands, 305
Galata (Constantinople), 2288
Galata, H.M.S., at Jeddam, 4840

- Galatia, Celts in, 2471, 2472
 —Romans in, 1891
 Galatians, Epistle to the, 2471
 Galba, emperor, 1857
 Galenazzo II, Visconti, 3218
 See also under Visconti
 Galen, physician, 2077-78, 2079-80
 —on athletes, 1327
 —on Christians, 2170
 —on witiness, 1508-07, 3010
 Galerius, emperor, 2121-26, 2183
 Galicia, Austria, Russian offensive, 1705
 Galilee, implements from, 157
 Galileo, 51, 3820
 —experiment at Pisa, 3341
 —scientific discoveries, 73, 3821, 5010
 —telescope invented, 50, 51, 3341
 Gall, S., Irish missionary, 2080
 See also St. Gall
 Gallia Placidia, v. of Constantius, 2202
 —marriages, 2203-04
 —masculinity, 2203
 —agency of, 2201-05
 Gallia, M. von, succeeds Wallenstein, 3052
 Galliani, Cecilia, portrait, 3207
 Gallus, S., oratory, 2476
 Galley Hill, terraces at, 115
 Galleys, punishment in France, 3858
 —Venice and Carthage, 1639
 See also Ships
 Gall-Gael, or Foreign Irish, race, 2525
 Gallifan Church, 3800
 Gallic War, 1808
 See also Gauls
 Gallienus, emperor, 2117, 2118, 2119
 —Christian persecution stopped, 2187
 Gallipoli, Anzio Cove, 4757
 —campaign in, 4755
 —evacuation, 4701
 —River Clyde at, 4157
 —Suvla Bay, 4756
 See also Dardanelles
 Gallus, emperor, 2116, 2191
 Gallus, port, influence on Vergil, 1890
 Galsworthy, John, 5011-15
 Gambetta, Leon, escapes to Tours, 4385
 —portrait, 4386
 Gambia, limits defined, 1030
 Gambling, in 18th cent., England, 4227
 Games, Caroleanish, relief showing, 581
 —Byzantine, 553, 557
 —medieval, 3443
 —in Mesopotamia, 640
 —primitive ideas, 311, 353-54
 —religious significance, 1752
 —Roman, 1813, 1828, 2021
 Gaming Board, Egyptian, 190, 553, 562
 —Sumerian, plate f.p. 629
 Gamp, Sairoy, and Macey Prig, 4100
 Gandash, Kasale dynasty, 431
 —Influence on China, 2552
 Gandhara, Indo-Greek kingdom, sculptures, 1495, 1496-99
 Gandhi, M. K., Indian nationalist, 4901
 Gazelen, of Mayence, fight with Poland, 2975
 Ganes (Cappadocia), expedition to, 521
 Ganymede, by Thorwaldsen, 4037
 Gapon, Father, on Bloody Sunday, 4911, 4912
 Garamond, Claude, type founder, 3192
 Gard, Pont du, 2042, 2043
 Gardens, Akimaton's, pillars from, 749
 —Huber's delight in, 3783, 3784
 —Egyptian, model, 886
 —18th century, England, 4301
 —Germany, 3952
 —Trumpion Court, 4299
 —Longest, 4300
 —romantic movement, 4209
 Gargas, cave drawings at, 256
 Garibaldi, Giuseppe, 4377
 —*and Italian Liberty*, 3015
 Garlande, Mathilde de, founded Port Royal, 3867
 Garonne, personified, 2151
 Garriok, D., in Burney household, 4247
 —*at Reynolds' party*, 4210
 —*with wife*, 4247
 Garrison, L. M., resignation, 4733
 Garstang, John, excavations, 591
 Garier, Order of the, 2977-78
 Gasga, Prince of, Hittite title, 726
 —military operations, 728, 744
 Gaskell, Elizabeth G., novels, 4545
 —*and social reform*, 1105
 Gas Mask : *see Respirator*
 Gassendi, Pierre, and atomic theory, 3831
 Gastaldi, Jacomo du, map of New France, 3603
 Gatchina, captured (1910), 4954
 Gattamelata, equestrian statue, 3039, 3040
 Gatumdag, Sumerian goddess, 616
 Gatun, Panama Canal and, 4536
 Gaucher, General, at Dusseldorf (1921), 4912
 Gaugamela, 1407, 1440, 1441
 Gauguin, Paul, Nevermore, 5024
 Gaul, barbarians enter, 1872
 —brigandage in, 2230
 —Caesar's campaigns, 1727, 1729, 1733, 1781, map, 1782
 —coin for Caesar's victories, 1785
 —figure representing, 1992
 —Franks settle in, 405
 —industries and commerce, 2130, 2111
 —provinces, 1694, 1708
 —representation in old MS., 2503
 —Roman conquest, 104, 1870
 —government, 1693, 2228
 —society in, 2226
 —Visigoths in, 2208, 2214
 See also France
 Gaols, 1508-15
 —armed, 1581
 —in Ash Minor, 1526, 1527, 1585
 —Caesar's statements, 1528
 —costume and armour, 1514
 —Delphi attacked, 1525-26
 —Etruria and, 1004, 1008
 —goals of, 1523
 —Greek invasions, 1525
 —in Hannibal's service, 1638
 —helms, 1514
 —Italian invasions, 1525, 1002
 —jewels, 1517
 —language, 1580
 —Italy's account of, 1523
 —in Macedon, 855
 —manners and customs, 1511, 1528
 —Pergamun statue, 1527
 —religion, 1521, 1528-30
 —under Roman protection, 1527, 1529
 —in Roman triumph, 1870
 —Rome, alliance with, 1004
 —sacked by, 1525, 1002
 —wars with, 1005, 1784
 —terra-cotta figures, 1601
 See also Celts
 Gauls, Council of the, 2131
 Gaumata, rebel chief, 1090
 Gaumata : *see Buddha*
 Gay, John, as dramatist, 4211
 Gava, Buddha in 1204
 Gaza, crusaders at, 2920
 —Thothmes III at, 660
 Gazelle, in Egypt, 486
 —Altitte carving, 751
 —priests with, 735
 —hunting in Assyria, 968
 —offering to Khnumhotep, 547
 Ge, the earth mother, 1371
 —in Greek religion, 1381
 Gebel el Arak, carved knife-handle from, 39, 493, 497
 Gedaliah, governor of Judah, 893
 Geer, Baron de, Swedish geologist, 144
 Geese, in Heroic Age, 847
 —supporting throne, 539
 Gellamir, Vandal king, 2265
 Gemelebar, Iron Age vase, 928
 Geimmo, built Reinforcement, 2413
 Geiseric, Vandal king, 2201-05, 2208
 —death, 2255
 Gelasius, pope, Concordat, 3023
 Gellert, G. F., German writer, 3950-51
 Gellius, literary style, 1882, 1883
 Gelon, tyrant of Syracuse, 1104-05
 —struggles with Carthage, 1094
 Gelonus, Greek intercourse with, 1055
 Gems, Christian symbols, 2189
 —Greek, Heroic Age, 844
 —Roman engravings, 1913, 1933
 Gemnkai, tomb at Sakkarah, 500
 General, American colonial, 4930
 General Strike : *see Strike*
 Geosis, Book of, evolution and, 4522
 —*—Flood*, account of, 559
 —*—on Palestine*, 805
 —*—on tribal distribution*, 815
 Geneva, Calvin at, 3681
 —Calvinism in, 301
 —League of Nations at, 1922, 4926
 —Lenin in, 4950
 —protocol, 4931
 Geni, in Italian religion, 1130
 Genius, in Roman religion, 1733, 1901
 —sacrifice to, 1740
 Gennadius, martyr, epitaph, 2186
 Genoa, commune, 2553
 —conference at (1922), 1884
 —Napoleon annexes, 4189
 —San Lorenzo church, 2813
 —trade, medieval, 2605, 2611-15
 —Venice, rivalry with, 2915-16, 3033
 Gens, 1644
 Gentile, in Roman law, 1644, 1648
 Gentleman, Castiglione's, portrait, 4212
 —evolution of, 4123
 —of Louis XIV's, time, 4661
 Geoffrey of Anjou, laire of, 2651
 Geoffrey of Monmouth, on Stonehenge, 827
 Geoffrey Malaterra : *see Malaterra*
 Geography, early knowledge, 2072-76
 —Egyptians and, 2169
 —Eratosthenes and mathematical, 2072
 —Greeks and, map, 1542
 —Herodotus and, 1531
 —history and, 314-5, 348
 —Romans and, 1687
 See also Maps
 Geology, 78-140, plate f.p. 96
 —Lyell's foundation of, 391-04
 —*and population*, 78
 —tables of eras, 27, 43, chart f.p. 96
 Geomancy, Chinese I Ching-shu, 2555
 Geometry, Archimedes, work of, 2063
 —Babylonian knowledge, 076
 —Egyptian knowledge, 1408, 1469
 —Euclid and, 2062
 —Ionian ideas, 1004
 —Plato's theory of circle, 1459
 —Pythagorean system, 1471
 —Thales of Miletus and, 1469
 George, S., of Antioch, 2481, 2697-98
 —carved figures, 2620
 —mosaic of, 2697
 George I, of Great Britain, 3870, 1221
 —portrait, 3879
 George II, 3884, 4222-23
 —portrait, 3884
 George III, 3902, 1224
 —American policy, 304
 —cartilage, 4224
 —coronation speech, 1224
 —*and family*, 1223
 —portrait, 3901
 —*and supremacy of Crown*, 3901
 —*at Weymouth*, 4253
 George IV, 4225
 —portrait, 4263
 —*as regent and king*, 4225
 George V, accession, 4373, 4570
 —in Australia, 4612
 —titles, 390
 George I, king of Greece, portrait, 1552
 —*—in Salonica*, 4583
 George II, of Greece, accession and abdication, 4855
 George, of Denmark, Prince, marriage, 4093
 George, D. Lloyd, and the Agadir incident, 4530
 —*—in Big Four*, 4877
 —*—and German war guilt*, 4911
 —*—portrait*, 4390
 —*—at San Remo Conference*, 4887
 —*—signs Peace Treaty*, 1875
 George Podiebrad, of Bohemia, 3140
 Georgelown, negro vote, 4492
 Georgia (Caucasus), lake-villages in, 631
 Georgia (U.S.A.), founded, 4008
 —Savannah in 1733, 4619
 —Wesley in, 4202, 4205
 Georgians, group of poets, 5017
 Gepids, barbarian tribe, 2207
 Gerard, Balthazar, murderer of Wm. the Silent, 3477

Gerard, François, Louis XVIII, 4106
 —Talleyrand, 1007
 Gerard of Florence: see Nicholas II,
 Gerasa: see Jerash
 Gerberoy, Battle of, 2056
 Gerbert of Aurillac: see Sylvester II
 Gert Hussey, Nubian couple at, 32
 Gerhardt, Paul, religious lyrics, 3945
 Gering, Ulrich, printer, 3190
 Gerizim, Mt., Samaritan altar, 1951
 —temple, 1951, 1955
 Gerlach, satire, 1371
 Germ, medieval theory, 3111
 German Empire: see Carolingian Em-
 pire; Germany
 Germania, bronze statue, 1389
 —Roman figure, 1993
 —of Tacitus, 2151
 Germanic Peoples, 2210-22
 —bonachas, map, 2356
 —Carossa's victory over, 1783
 —Gloftin beheaded, 1977
 —Italian invasions, 1779
 —law, 2158, 2155
 —silver bowl, 2218
 —Tacitus describes, 2211, 2151
 —woman's status, 370
 See also Goths; Huns; Ostrogoths;
 Franks; Vandals
 Germanicus, the Younger, 1819, 1851
 —on coin, 1818
 —coin, 22
 —on tiber, 1862
 —marriage, 1817
 —origin of name, 1816
 —Philostratus of Aradus translated by,
 1801
 —statue, 1851
 —Theban adopts, 1848
 Germanus, S. b. of Auxerre, visits
 Britain, 2145
 German Workers' Union, 4985
 Germany, African annexations, 4030
 —and Agadir Incident, 4679
 —Aryans in, 2215
 —in Brazil and Chile, 413, 4326
 —crippled by Armistice (1918) 4873
 —disarmament, 4879
 —San Remo Conference, 4887
 —18th cent., 3948-82, plate f.p. 3982
 —empire of (1870-1918), banking in,
 4007
 —cartel system, 5000, 5002
 —colonial policy, 413
 —fleet law (1913), 4690
 —foundation, 3614, 4386
 —industrial development, 4085
 —Japan, influence on, 4420
 —liberalism in, 4306
 —middle classes in, 4440
 —organizing ability in, 4089
 —socialism in, 4986, 4991
 —protection, 395, 398
 —Five Nations of, 2498, 2501
 —Great War, 4740-81, 4797-98,
 4801-69
 —reasons for, 4586
 —Hunsentia League in, 3019-61
 —Kellogg Pact signed, 4991
 —League of Nations joined, 4893, 4925
 —liberation, War of, 412
 —at Looz Conference, 4893
 —medieval, 2490, 2498-2505, 2823-25,
 3049
 —church authority, 3003
 —city states in, 3049
 —colonial activity, 3019-50
 —commerce in, 2898, 3090
 —development, 3050
 —disorder in, 2746, 2820, 3002
 —Frederick II and, 2841
 —Gregory VII and, 2491
 —Holy Roman Empire and, 408,
 2504, 3049: see also Holy Roman
 Empire
 —king, 2637
 —mercantile fleet surrendered, 4011
 —mineral deposits, 100-7
 —monasteries dissolved, 2285-86
 —nationalism in, 408, 3614
 —navy, in Great War, 4834-60
 —surrenders, 4874
 —William I, programme, 4571, 4000
 —in 19th century, 4293
 —N. German Confederation, 4259

Germany—cont.
 —occupation, post-war British, 1879,
 1912
 —French, 1888-92, 4912, 4913
 —origin, 2122
 —parliamentary government, 3677
 —Peace Treaty (1919), 4871-77
 —peasant revolt, 3311
 —post-war, army, 4887
 —economic conditions, 4096, 5071
 —bank collapse, 1911, 1915
 —present, improved conditions,
 5071
 racial elements, 308
 Reformation period, 3315-55
 —Reparations, 4910-14
 —Dawes Report, 4892
 —default, 1890, 1013
 —Roman period, 1816-18, 1851,
 1966-67, 1975-77, 2210
 —conquests, 1871-72
 —frontier problems, 1962
 —occupation, 1985
 —trade in, 1987
 —Roman law in, 2168
 —romanticism in, 1309
 —Rousseau's influence, 4066
 —Russia, relations with, 4563
 —Treaty of Brest Litovsk, 4955, 4956
 —and Siberian difficulty, 4928
 —smaller statistics, 5050
 —socialism in, 1935-37, 4901
 —Thirty Years' War in, 3610-55
 —and Triple Alliance, 4536
 —U.S.A. treaty with, 4922
 See also Charlemagne; Franks;
 Holy Roman Empire; Prussia;
 and separate German States
 Gernigny-des-Prés, church, 2110
 Geronthi, revolt and death, 2203
 Gerson, J. O. de, and papal reform, 3006
 Gersin, trial, 1973
 Gervase, of Tilbury, 2701
 Gorsean Culture, description, 39, 40
 —pottery vases, 38, 39
 Gesale, Visigoth, claim to throne, 2300
 Gesture, as language, 321, 322
 Geta, emperor, 2109, 2110
 Getzsemane, Garden of, 1912
 Gettysburg, battle of, 4302
 Geyza, of Hungary, attitude to
 Christianity, 3150
 Gezer, Baal sanctuary at, 824
 —captured by Shimon Macabaeus, 1702
 —high place at, 824
 —household god from, 823
 —human sacrifice at, 826
 —pagan altar at, 1701
 —ruins of, 7702
 Ghana, Sudan, 3303-04
 Ghazali, greatness of, 2701
 Ghazani, power and code of laws, 2833
 Ghaznavids, decay, 3107
 —kingdom, 2779-80, 2782
 —obliteration of, 2760
 Ghazni, Seljuk Turkish dominion, 2513,
 2779-92
 —magnificence under Mahmud, 2783
 —sack of (1150), 2750
 Gheeraeds, Marous, port. of Lord
 Burghley, 3551
 —Pageant at Windsor, 3502
 Ghent, 3081-82, 3085
 —knights before Louis of Male, 3084
 —castle of counts of Flanders, 3082
 —goldsmith's shop in medieval, 2917
 Ghent, Peace of (1811), 4112
 Ghibelline, family, origin, 2657
 —and Guelph in Italy, 2751-65, 2775
 Ghibellino, Domenico del, painting,
 David and the Shewbread, 3206
 —port., Costanza de' Medici, 3207
 Ghor, Afghan sultanate, 12th cent. 2750
 Ghosts, Babylonian beliefs, 587
 —cremation to deal with, 620
 Ghiyam Kadir, Rohilla chief, 3708
 Ghuzza, Turks, 2770-81, 2785
 —Seljuk power overthrown, 2792
 Giant, statue, cause of, 176
 Giant of Kerdar, monolith, Carnae, 623
 Giaour Kalesi, rock carvings, 717, 718
 Gibbon (ape), 170-82
 —evolutionary position, 181
 —forerunners, 162, 163
 —jaw, prehistoric and modern, 163

Gibbon, Edward, 10, 11
 —on hereditary succession, 1873
 —and women's society, 383
 Gibbs, Charles, American pirate, 3817
 Gibbs, James, S. Martin-in-the-Field,
 built, 1238
 —London churches by, 4240
 Gibraltar, captured by Rooke, 3759
 —relief at, 3910
 Dig-Pac-Kin, Ur temple, 331
 Gilbert, Sir Humphrey, 3671, 3575
 —patent granted to, 3809
 —search for N.W. passage, 3571
 Gilbert, William, on magnesian, 3822
 Gilbert, W. S., and comic opera, 4552
 Gibson, Mt., Beth-Shan beneath, 816
 —death of Saul on, 677
 Gidas the Wise, writings of, 2117
 Gildo, Moorish prince, 2200
 Gilead, inhabitants departed, 820
 —overrun by Syrians, 826
 Giles, H. A., Chinese poetry, 2540, 2549
 Gilegamesh, on Babylonian seal, 587
 —dealings with (goddess) mother, 578
 —loved by Ishtar, 576
 —prayer of, 585
 Gilegamesh, Epic of, 539, 573, 579, 581,
 589
 Gilles de Rais, witch and prototype of
 Bluebeard, 3255, 3256
 Gilray, caricatures, political, 4188, 4221,
 4253
 —social, 4229, 4232, 4231-35
 Gilm-Khup, Mitannian name, 808
 Gilyaks, bear-cubs, 192
 Gilm-Marduk, letter to wife, 580
 Gilm-Sin, king of Babylon, 582
 Gin, Smollett on, 5015
 Giney, supports near, 1707
 Gin Lane, Hogarth study, 4202, 4235
 Ginner, Charles, modernism, 5037
 Giorione, pig of Venetian soldier, 3039
 Glotia, 3235, 3325-26
 —Campagna at Florence, 4216
 —Ireoso, Death of S. Francis, 3333
 —Boniface VIII, 2845
 —in S. Croce, Florence, 3333
 —Virgin with angels, 3332
 —portrait of Dante, 3225
 Giovanni, Bertoldo di, medieval shaving
 Mohammed II, 4156
 Graefe, early type, 131
 —natural selection, 4529
 —tribute to Pliny, 679
 Graefe Palette, 383, 568
 Girdle, significance of, 360, 361
 Girenti, temple of Concord, 1557
 Gisle's Friendly Society, formation, 4400
 Girodet, Chénier, 4321
 Girondins, fall of, 4090, 4172
 —origin and rise, 4083, 4170
 —political club, 4142
 —strife with Jacobins, 4088
 Gizeh, pyramids of, 425, 606
 —plan, 608
 —the Sphinx, 25, 425, 509
 —statues from Menkaura's temple, 179
 —statue of Khafra, 480
 Glacial Epoch: see Ice Age
 Gladstone, 1814, 2023-25
 —thel to the death, 1816
 —Samite, 1716
 —women, 2024, 2025
 Gladstones, W. E., on Butler's Analogy,
 4055
 —and free trade, 4176
 —as special constable, 4436
 —and Trade Union law, 393
 —votes for agricultural labourers, 393
 Glagolitic Alphabet, or Script, 1002
 —inventor of, 2637
 Glarus, canton, in Swiss Confed, 3089
 Glasgow, Lister's ward in Royal
 Infirmary, 5054
 Glass, ancient Egyptian, 097, 703
 —Anglo-Saxon, 2458
 —Assyrian, 976
 —Carthaginian, 1639
 —Phoenician work, 1630
 —Roman, 2013, 2145
 —Saracenic, 2549
 —Venetian, 3230, 3938
 —windows, early use, 3456
 Glastonbury, lake village, 632

- Glaucaia, Roman politician, 1771
Glaucus, Spartan, 1551
Glebe land, sanctuary in Ireland, 2674
Gleemen, 2664
Glendalough, S. Kevin's Church, 2682
Glenelg, Lord, and the Kaibirs, 4618
Globe Theatre, Bank-side, 3553
Glossopieris, fossil tree fern, 107
Glossopieris, Bank's Sunday school, 4103
—Roman colony, 2146
Gloicester Cathedral, Edward II's tomb, 2907
—lavatorium, 2279
Gloicester, William, Duke of, son of Anne, 3757
Glover, De, on the Stoics, 1908
Glozel, inscriptions, 1067
Glycerius, proclaimed emperor, 2208
Gnesenau, sinking, 4339, 1840
Gnomon, Babylonian invention, 977
—introduced to Greeks, 1169
Gnosticism, 2002
—influence of Zoroastrianism, 1506
—women's part in, 2178
Gob, Albuquerque founded, 3535, 3536
Gob, carving from Kish, 516
—Cretan, in facade, 608
—first domesticated, 222
—in predynastic Egypt, 186
—worship in witchcraft, 3257, 3258
Gobolus Tapestry, plate f.p. 3321
—royal visit to factory, 3849
Gobernaciones, Federal Territories, Argentina, 4328
Gobryas, ally to Cyrus, 1086
God, Acephalus' idea of, 1956
—Allah identified with, 2375
—Aristotelian conception, 1464
—early views of relation of Trinity, 2331
—Eastern religions, idea of, 2081
—Hebrew conception of, 1371, 1566
—Jewish idea, 1566, 1947, 1952
—localised idea opposed by Jeremiah, 1845
—Stoicism, idea of in, 1465
Go-Daigo, Mikado, 20901
Godyot on Bouillon, 2974
—on Crusade, 2652
—Hospitallers aided by, 2978
—position in Palestine, 2977
—role in Jerusalem, 2799
—sword and spurs, 2890
—title of king refused, 2653
Goday, favourite of Carlos IV, 4080
Godred, Danish king, and Charlemagne, 2418, 2520
Gods, early civilizations, 637-56
—Egypt, 638-51
—Greek, 2893-86
—Mesopotamian, 524, 536-40, 583-87, 630-53
—Roman, 1734-53
—See also Religion
Godwin, Earl of Wessex, 2707
—under Edw. the Confessor, 2503
Godwin, William, communist, 1979
—Political Justice, 4070
Goeben, German ship, 1751, 4752
Goethe, Johann Wolfgang von, birth-place, 3970
—on cost of living, 3977
—description of Goethe, 3959
—with Fritz von Stern, 3975
—house at Weimar, 3971
—on Mirabeau, 4165
—pastoral plays, 3951
—portraits, 3955
—reform in German lit., 3955
—and romanticism, 4310
—sketch of sister, 3977
—on smallpox, 3973
—and Storm and Stress movement, 3959
—and Weimar theatre, 3953
Gogh, Vincent Van, Landseape, plate f.p. 5027
—modernism, 5023, 5025, 5027
—self portrait, 5025
Gogol, Nikolai Vassilievitch, 4312, 4313
Gogstad, Viking ship, 2518-19, 2627
Goifollo Language, 1507
—Introduced into Britain, 633
Goloonda, attacked by Aurangzeb, 3778
—diamond mines, 3778, 3791
Gold, ancient evaluations, 357
—in California, 4501
—early-st evidence of use, 353, 631
—Egyptian, 489, 558-59, 698-99, 753
—found in Victoria, 4609
—influence on civilisation, 350, 361
—at Johannesburg, 4620
—mine, Colorado, 1602
—from Mycenaean tombs, pl. 756, 780-1
—in Arabia, importance, 558, 554, 561, 675
—Sassanian, 2217, 2318
—Seythian workshop, plates, 926-7
—smuggling, Napoleonic wars, 4139
—Sumerian, Iron Ore, 517, plate f.p. 529
Golden Age, Hesiod on, 350, 5036
Golden Arrow, Segrave's ear, 5064
Golden Bull, of Chas. IV (1356), 3907
—Hungarian, 1352
Golden Calf, identity with Hathor, 1007
Golden Fleece, Order of, 2979
Golden Hind, Drake's ship, 3512
Golden Horde, Byrta founded, 2850
—empire of, map, 2879
—and Tamerlane, 2850, 3121
Golden Horn, position, 2283, 2289
Golden Rule, on Roman palace walls, 2186
Gold Sceptre, Hittite title, 723
Goldsmith, Oliver, as dramatist, 4211
—Influence on German novel, 3951
—at Reynolds' party, 1210
Goldsmith, Egyptian, 555
—medical client, 2917
—shops, Ponte Vecchio, Florence, 2916
Gold Standard Act, 4612
Golenischeff Papyrus, on the Zakkala, 796, 805
Gomez, Venezuelan dictator, 4334
Gompers, Samuel, and American Fed. of Labor, 4517
Gomphi, capture by Romans, 1731
Gonatas, see Antigonus Gonatas
Gondar, Abyssinia, Port. castle, 3405
Gondomar, Spanish ambassador, 3719
Gondwanaland, prehistoric continent, 107
Good, The, ancient Greek ideas of, 1100
—Platonic belief, 1460
—Prophet Micah's definition, 2971
—Stoic theory, 1465
Good and Evil, Assyrian conception, 978
Good Hope, H.M.S., sunk at Coronel, 4836, 4838
Goodmanham, pagan temple at, 2160
Gordian I, emperor, 2114
Gordian II, emperor, 2114
Gordian III, emperor, 2113, 2114-15
Gordianus, father of Gregory I, 2325
Gordium, Phrygian capital, 865, 883
Gordius, name of Phrygian kings, 883
Gordon, Charles George, death, 4362
—expedition to Khartum, 4561, 4637
—suppresses Taiping rebellion, 1655
Gordoshera, Asia Minor, 2179
Gorge, see Fishing
Gorge, Khamtan leader, 4370
Gorgon, sculpture at Bath, 2751
Gorilla, 171-176
—compared with chimpanzee, 170
—with Pithecanthropus, 156
—foot compared with man, 174
—male, mental capacity, 171
—native territories, 172
—normal mode of progression, 175
Gorizia, captured by Italians, 4760
Gorleston, monumental brass, 2928, 2929
Gorm, the Old, and Henry the Fowler, 2499
Gorner Glacier, 186
Goritz, Swedish minister, 3886
Goschen, Georg J., printing work, 3197
Go-Shirakawa, forced flight, 2991
Gotha, home of liberal ideas, 3903
Gothic Alphabet, 1062
—Ayr, 3186, 3188
Gothic Architecture, 2861-96
—Belgian, 2893, 2894-95-
—Carolingian influence on, 2410
—in Cyprus, 2893
—English, 2876, 2889-93, 2894
—into, 3196
Gothic Architecture—cont.
—French, 2893
—Flemish, 2862-75, 2877-87
—Italian Renaissance pre-shadow, 1, 2886
—Roman—see compared, 2885
—St. Mark, Venice, 35, 3933
—Spanish, 2885
—Stained glass, in alliance, 2872, 2878-79, 2884, 3238
—statuary, use of, 2862-64, 2886
—in Syria, 2893
Gothic Language in the Crimea, 2478
Gothians, see Claudius, emperor
Gothland, importance, Hansentia, 3053
Goths, Arian beliefs, 2268
—Christianity adopted, 2396
—Dacia ceded to, 405
—divisions of race, 2218
—emergence of, 2116
—entry S. Danube, 2108
—Greece invaded, 2201
—Influence on German art, 2222
—Italy invaded, 405, 2201
—original home and migrations, 2211
—Rome, dealings with, 2116, 2119, 2213
—Runic alphabet from, 2222
—seals, marks on, 1067
—Theodosius' dealings, 1998
—See also Germanic Peoples; Visigoths
Gottingen University, 3947
—Storm and Stress movement, 3960
Gotschalk, monk, and Johannes Scotus, 2688
Gotsched, Johann C., 3956
—'the German Bolleau,' 4015
—and German literature, 3949
—Goethe's description, 3959
Gough, Lord, at Chillianwalla, 4461
Gould, Jay, on bribery, 4300
Gourgand, General, Napoleon dictating to, 4199
—sketch of Longwood, 4198
Gournia, excavations at, 758, 770
—sketch of handle vase from, 699
Gout, 18th cent. victim, 4334
Governors, early 19th century, 4244
—French, in 18th cent. Germany, 3960
Governors' Benevolent Institution, foundation, 4107
Government, ancient Egypt, 400, 663
—of British India, 4471
—direct, cause of, 1508
—Greek conception of free, 1761
—Hittite Empire, 723
—under Louis XIV, 3841
—Mesopotamian city states, 510, 525
—middle-class share in, 1420
—modern begun by Fred. II, 2846
—primitive tribes, 312-13
—the rise of parliament, 3657-79
—theocratic in river cultures, 472
Government, Book of, see Sivasat Nama
Government of India Act (1919), 4643
Gower, John, apostrophe to wool, 2000
Gowland, Zool., discoveries at Stone-
henge, 629
Goya, Carlos IV of Spain by, 4689
—Ferdinand VII of Spain by, 4259
Gracchi, The, 1831-32
—cause of tragedy, 300
Gracchus, Gaius, 1769, 1831-32
—death, 1769
—direct appeal to the people, 1766
—efforts for Roman agriculture, 1816, 1823, 1832
—tribunate and measures, 1768, 1832
Gracchus, Tiberius, 1767, 1831
—efforts for Roman agriculture, 1816
—mediation for Numantia, 1710
—in Spain, 1700
—tribunate and aims, 1766, 1831
Gracchus, Tiberius Sempronius, in Spain, 1694, 1696, 1710
Graeco-Bactrian kingdoms, see Bactria
Graeco-Turkish War (1921), 4881
Graf, Anton, classical tradition, 3963
—portrait of Chodowiecki, 3957
—of Lessing, 3966
Grain: see Corn
Grammar, foundations of science, 2170
Gramme, Zenobe T., dynamo, 4765, 4769
Grammont, minister of Nap. III, 4883
Gramophone, history, 4710
Gran, capture by Mongols, 3163

Granada, Alhambra: *see* Alhambra

- architecture, 3275
- armistice after capitulation, 3285
- curfew, 3280, 3285
- Moors last kingdom, 2827, 2829, 3205
- Granada, Treaty of, between France and Aragon, 3208
- Granary, at Alchelat, 685, 686
- the Double (IV to VI dynasties), 496
- Kur-Il, keeper of the, 549
- Middle Kingdom noble, 556
- at Mycenae, 779
- Old Kingdom, 459
- in Scipio's camp, 1730
- Grand Assembly, The (1851), 3678
- Grand Canal (China), construction, 3505
- Grandella, battle of, 2825
- Grandfather Clause Louisiana, 4195
- Grand Fleet, at Scapa Flow, 1811
- Grand Junction Canal, 4262, 1315
- Grand Remonstrance, in Charles I., 3607
- Grand Teton Canal, opened, 1345
- Grange, The, U.S. in schoolhouse, 1513, 1514
- Granger Movement, objects, 4513
- Gracious, valleys, Troy's access to, 851
- Craneus, battle of, 1407, 1430, 1432-33
- Alexander's tactics, 1424
- Grannos, Celtic god, 1522
- Grant, Ulysses, administration, 4509
- Federal Commander, 4392
- Granville, archbp., in Netherland government, 3467
- Grass, cereals from, 315
- for storage pits, Egypt, 463
- Grassland, on borders of Brazil, 311
- at dawn of civilization, map, 136
- early inhabitants, 221-4, 430
- European areas, map, 313
- in forest country, 340, 430
- nomads of, 430, 410, 418
- world's areas, map, 338
- Gratian, emperor, 2197, 2198-99
- Ambrose's influence over, 2322
- Gratian, monk, Decretum of, 3019
- Gratian, John: *see* Gregory VI
- Gratus, Cynegetes of, 1893
- Grant, John, and bills of mortality, 5040
- Gravelines, battle of, with Spanish Armada, 3511
- Gravelotte, battle of, 4385
- Graver, Solatrac implement, 248
- Graves, Babylonian, 531
- Celtic, 1518-9, 1621
- clst., at Hyderabad, 452
- Egyptian, plan, 503
- at Mycenae, treasure in, 778
- prehistoric, classification, 141
- shaft, Mycenaean, 778, 787, 809
- See also* Barrow tombs; Beehive tombs; Burial Customs; Tombs
- Gravitation, relativity and, 5010
- Gravitational Theory, Newton's work in, 3826
- Gray, Thomas, the Elegy, 4307, 4308
- influence on Germany, 3950
- Great Britain, and American Civil War, 4391
- becomes workshop of world, 4084
- in Carboniferous times, 103
- colonial expansion (18th and 19th cents.), 411, 413-14, 4000-08
- combination in, 5000
- declares war on Germany (1914), 4588, 4742
- distribution of pop., 78
- economic loss by G. War, 4088
- entente cordiale with France, 4573
- free trade importance, 4486
- independent nation state, 413
- industrial growth and decline, 4084-85
- mistress of the seas, 3877
- post-war conditions, 5081
- Seven Years' War, gains in, 3903
- in Silurian Period, 97
- splendid isolation, 4503
- in Triassic Period, 108
- union of England and Scotland, 3700
- See also* Britain; British Empire; England; Ireland; Scotland; Wales
- Great Charter: *see* Magna Carta

- Great Eastern, S.S., and Atlantic cable, 4699
- crossed Atlantic, 4351
- Great Elector: *see* Frederick William, of Brandenburg
- Great Exhibition (1851), social reformers at, 1300
- Great Interregnum, 2826, 2815
- Great King, in Persian Empire, 2316
- Great Mother, Mesopotamian, 978
- Ishtar in worship, 1752 53, 1761, 2085
- Great Powers, development, 3877-3916
- Great Privilege, the, Netherlands' Magna Carta, 3678
- Great Schism, beginning, 3068-70
- effect on thought of time, 3063
- See also* Papacy
- Great Wall: *see* China
- Great War (1914-1918), 4710-84, plates f.p. 4772 and 4773, 4797-4824, 4829-400
- air raids, 1811, 4815-16, 4825
- belligerent countries in, map, 4742
- breast-plates, German, 2397
- and capitulation, 5000
- Central American states and, 4339
- China in, 4332
- declaration, 4588
- allied and central powers, map, 4742
- Jewish, probable results on Gt. Britain, 4688
- Dominions and, 4625
- loyalty, 4640
- Eastern Front, map, 4761
- effect on faith, 4801
- on Russia, 4014
- on socialism, 4089
- on U.S.A., 4922
- European changes, 4879
- excellent causes, 4586-88
- five main stages, map, 4741
- gas in, 4792-95
- German attitude, explanation, 4636
- campaign plan (1914), 4798
- Great Britain enters, 4588
- lessons from, 4821-28
- and literature, 5019
- modern art in, plates f.p. 4772-73
- naval history of, 4754, 4779-80
- new elements in, 4797-1828
- outbreak, 4587-88
- Peace Treaty signed, 4874, 4876
- post-war settlement, 4886
- reconstruction after, 4905, 4906, 4916
- science and, 1783-90
- sea power, rôle in, 4833-60
- S. American states and, 4339
- steel helmets and armour, 2937, 4817
- U.S.A. entry into, 4734, 4735
- on eve of, 4711-38
- 'war criminals' conference, 4887
- western front, map, 4744
- women in and emancipation, 307, 369
- workers, organization, 4681, 4801
- world drift to, 4553-89
- See also* belligerent countries and headings as Artillery; Poison Gas; Submarine; Tank; Trench
- Greaves, early, 2929
- of Mycenaean groom, 787
- Heroleo Age, 816
- Greece, Ancient, agricultural import-ance, 1256
- aristocracy, 1112, 1111
- army, 1113
- Homeric, 846
- hoplites, 1099, 1212-13
- athletics in, 1304, 1313-29
- Avars in, 2476
- beginnings and growth, 1031-60
- Bronze Age culture, Dorians de-stroy, 903: *see also* Homeric Age below
- cities, 1047, 1050-51, 1053, 1110
- city states: *see* Greek City States
- coins, 7th-8th cents., 1116
- 5th cent., 1261, 1288, 1336
- 4th cent., 1403, 1410

- Greece, Ancient—cont.
- 3rd cent., 1115
- non-Athenian, 1519
- etruscanism (owl), 1550
- colonies, 893-94, 1047-59
- commercial aspect, 1533
- Etruscan and Phoenician checks, 1467
- maps, 931, 935, 1018
- piracy profits, 1110
- radius, 1538
- typical city, plan, 1052
- colonisation methods, 1182, 1388
- commerce, Mediterranean, 994, map, 1539, 1536-53
- cosmetic, Dorian and Ionian, 986 7
- Cretan control (1600 B.C.), 1031
- Cycadic culture, 406
- defection of rulers, 1870
- division in last days of inde-pendence, map, 1670
- domestic life, 371, 1123
- Dorian invasion period, 983-95, 1032-33
- economic conditions in, 389
- emigration from, 790
- farming, 2029
- federal communities, 1668
- 5th century culture and life, 1255-1304: *see also* Greek Art; Greek Civilization
- history, 1005-1101, 1228-46
- first peoples, 974
- Geometric Period, 995, 996-98, 1000
- Hellenic cultures, D11: *see also* Mycenaean Culture
- Hellenistic, 1101-16, 1073-76, map, 1670
- Homeric age (heroic), 410, 835-51, 985, 1108
- migrations in, 900
- monarchy in, 1100
- Indian influence on, 1500
- Ionian, 1001-04, 1016-17
- Ionian migrations, 1000, 1017
- thought, 1470
- Iron age, 1032, 1034
- low attitude towards, 472
- codes and justice, 1011-42
- League and how they arose, 1007-82
- Macedonian rule, 1105, 1425
- magistrates, rule, 1111
- medicine in, 1176-78, 5039
- merchandise, 1036
- modern world's debt to, 1555-69
- monarchic and republican powers, 1071
- music, 2058
- Mycenaean culture, area of, 772: *see* Mycenae
- 9th to 6th cents., 983-1001, 1035-60
- Peloponnese occupied, 983
- Peloponnesian War, during, 402
- after, 1308
- Persian wars, 1083-1103
- cessation of, 1232, 1235
- pirates, action against, 1518
- plough, 316
- political failure, reason for, 402
- post-Homeric, 980
- pre-Hellenic culture, 991: *see also* Hellenic culture and Homeric Age above; and Mycenaean; Troy
- religion: *see* Greek Religion
- rise and fall of, plate f.p. 402, 702
- Roman conflicts with, 1571
- Empire, Greece part of, 1083
- protection, 1583
- province of Asia, 1090
- relations with, 1607
- settlement, 2nd cent. B.C., 1033
- Rome, freedom granted by, 1079, 1080
- subjection to, 1072
- rural life, 994, 995
- sea-borne culture, 318
- seamanship, 1034, 1035
- sea power, 1010, 1516
- ships, 993, 999, 1035, 1241, 1259
- sixth cent., 1035-60
- slavery in, 1123

Greece, Ancient—*cont.*

- Slavs in, 2476-77
- social conditions, primitive, 1408
- 6th cent., 1123
- Spartan and Athenian rivalry 1233: *see also* Sparta
- states: *see* Greek City States
- temples used as banks, 1551
- Ten Thousand, march of, 1247
- tyrants, established, 1111
- warships, 1035, 1511, 1638, 1639
- women's position in, 373-74, 1283, 1287
- See also* Aegean; Athenian Empire; Athens; Cyclades; Minians; Mycenae; Sparta; Troy

Greece, Modern, Independence fight

- League of Nations and, 4920
- nation state, 413
- Otto of Bavaria, king, 4264
- republic (1923), 4866
- supports Crete, 4565

Greek Alphabet, adoption of Ionic, 1062

- Cretan and Phoenician resemblances, 1066, 1077
- influence on Latin, 1755-57
- origin, 801
- on Ptolemaic dialla, 1599, 1755
- 7th to 5th cents., 1070
- syllabic, 1066

Greek Architecture, Acropolis: *see*

- under Athens*
- arch, use of, 1187, 1189
- beauty and influence, 1537
- conservatism in, 1187
- constructional principles, 1307
- development in 6th cent., 1050
- domestic, 830, 1673
- expression, 2882
- Homeric, 837, 840-42: *see also* Mycenae; Troy
- Museum, reconstruction, 1189
- modern use, 1554, 1558-59
- orders of, 1308
- Roman use, 1914
- Parthenon: *see* Parthenon
- pillar the keynote, 1308
- temples, 1059, 1307-08
- Aegina, 1309-10
- Corinth, of Apollo, 1039
- Delphi, 1312-14, 1308-09
- Eleusis, 1383
- Erechtheum, 1294
- Girgenti of Concord, 1557
- Paestum, 1054-55
- Segesta, 1187
- at Solhus, 1049-51
- Theseum, Athens, 1292
- theatre, Epikaurus, 1348-49
- Ulonysus at Athens, 1344-47
- Trojan, Homeric, 837: *see also* Troy

Greek Art, 1294-1336

- archaic smile, 1024
- in Asia and Asia Minor, 1487-1506
- Asiatic Associations, 999
- athletics, relation to, 1304-29
- Attic, 1003, 1040-43
- blend of East and West, 1000
- border-decoration motive, 83
- in Bronze Age, 995
- Buddhist adaptations, 1496-98, 1502-04
- Chinese influenced by, 1502-04
- similarities, 1197
- in Chinese Turkistan, 1502-04
- coin making, 1261
- colouring, 1272, plate *f.p.* 1434
- comparison with modern, 1556
- Cypriot work, 1014, 1025
- eastward spread, 1487-1500
- Egyptian compared with, 1106-07
- influence, 1014, 1030
- influenced by, 1025
- 5th cent., 1033, 1034
- Gandhara, 1497-99
- Geometric, Spartan, 1000: *see also* Vase painting below
- Hellenistic, 1410-11, 1675-76
- human touch in decorative, 1264
- in India, 1496-1601
- Indian influenced by, 1502
- Mesopotamian influence, 1030

Greek Art—*cont.*

- Oriental influence, 996, 999, 1002, 1038
- painting, 1933
- influence on Pompeian, 1987
- portraiture, 1025
- religion, connexion and interaction with, 1361, 1378: *see further under* Greek Religion
- restraint and balance, 1191
- Roman influenced by, 1911, 1918
- Spartan, 1000, 1037-38
- ivories, 999, 1034
- subjectivity, 1033, 1034
- at Taxisia, 1500-01
- vase painting, 1261, 1262, 1315-20, 1335
- black figure, 1010-41, plate, 2264
- Corinthian, 996-98
- Dipylon, 996-98
- Geometric, 995, 996-98
- red-figure, 1265, plate, 1269-70, 1335
- white ground, 1264, plate, 1271

Greek Church (Orthodox or Eastern), 2026

- bishops in full canonicals, 2632
- break with Western, 2425, 2626
- in Byzantine times, 2631
- church organizations derived from, 2638
- clergy's position, 2637
- early adherents, 2510
- E. Roman Emperor head of, 2624
- equality with Rome claimed, 2340
- icons, 2625
- ideals, 2642
- independence claimed, 2340
- missionary activities, early, 2637
- Patriarch's authority, 2038
- in Persia, 2311
- relics, 2625
- Russian based on, 2638
- spirit of, 2637

Greek City States, 1107-21

- basis of, 1372, 1556
- characteristics, 998
- in colonies, 1149
- constitution, 1045
- limit of political ideal, 402
- maps, 1106, 1233
- rivalry, 1220-49, 1308
- tragedy of, 1607-82
- Greek Civilization, Egyptian compared with, 1007
- extent of, 1255
- influence on European, 1387
- origins, 998
- relation to older, 1001
- Eastern spread of, 1487-1506, map, 1490
- influence on Rome, 1755-1703, 1900

Greek Drama and Comedy, 1345-50

- conservatism in, 1187
- Roman debt and adaptations, 1758-60
- Greek Empire: *see* Byzantine Empire
- Greek Fire, flame projectors, 2621
- Greek Language, Byzantine conservation, 2040

- dialects, early, 980, 1033
- early Christian Church, use of, 2232
- grammar, 2109-70
- effect on spread of Christianity, 1404
- Latin affinities, 320, 1756, 1879
- Minoan resemblance to, 705
- not a dead language, 329
- possibly that of Pelasgians, 803
- Sanskrit affinities, 326, 1504
- Slavonic effect on, 2477
- theories as to speaking, 985
- Greek Literature, 1337-62
- Aeschylus, plays of, 1349
- Alexandrian school, 1361
- Byzantine conservation, 2640
- cyclic significance of, 440
- Homeric, period after, 1840
- influence on Roman, 1755, 1758
- modern literature and, 1500
- religion, connexion with, 1303
- Renaissance revival, 3320-21

Greek Philosophy, 1451-66

- conception of God in, 1566
- in Hellenistic Age, 2094
- influence on Arabic, 3291
- Judaism in, 2095
- modern debt to, 1563
- paganism and, 1903-1910
- religion, contribution of, 1377
- in Roman Empire, 1763, 1903
- social position of philosophers, 1903

See also Aristotelic; Epicurean; Philosophy; Plato; Sociates; and separate schools, as Stoicism

Greek Poetry, 1337-42

- Homeric, 835-51, 1337-38
- modern debt to, 1560-61, 2214
- restraint in, 1101
- Roman use of, 2244
- 3rd cent. B.C., 2168
- Greek Religion, ancient, 1303-86
- Christianity foreshadowed, 1386
- Chthonian element, 1383, 1384
- creation theory, 47
- Egyptian interconnection, 2087
- evolution, 1186
- fire sanctity, 1128
- God as conceived in, 1464-65
- influence on Roman, 1740, 1752
- mythology distinguished from, 1303
- nature worship, 1128, 1364-67, 1371

- priestesses, 371, 1365, 1386
- ritual forms, 1752

Greeks, character, 1184-85

- formative influences, 1055, 1059
- compared with Englishmen, 1287
- crucial streak in, 2634
- early races, 983, 994
- freedom, desire for, 1037
- girl babies exposed, 374
- nomenclature system, 1044
- outlook on life, 1181
- physical training, 1313
- racial affinities, 308
- and separation of sexes, 3081
- Slavonic mingling with, 2477
- view of Homer, 853

Greek Sculpture, 1294-1301, 1330-34

- accuracy of detail, 1311
- archaic statuary, 1001, 1003, 1053, 1103-04, 1316, 1327
- of athletes, 1301, 1304, 1316-17, 1320-24, 1329
- Attic, 1003, 1043, 1044, 1193-95
- body, perception of beauty, 1327
- canon of human proportions 1195, 1300, 1331
- early lack of life, 1060
- Egyptian influence, 1003, 1023, 1316
- technique similarity, 1199
- full flower of, 1009
- gymnasium influence, 1329
- Hellenistic, 1410, 1675-76
- ideality of, 1193
- influence and leadership, 1559
- on Indian, 1405-99
- Ionian, 1046, 1047
- Lysippos of Sicyon, 1301
- nude female form, 1332, 1333
- gymnasium inspiration, 1316
- of Parthenon: *see* Parthenon
- Phedrian school, figure of, 1497
- Polykleitos, 1195, 1300, 1331
- portraiture, 1925
- Praxiteles, Hermes and Aphrodite, 1302-03, 1331
- reliefs, 1317, 1322, 1359, 1367, 1370, 1382, 1385
- grave, 1033, 1038, 1042, 1192, 1247, 1262-63, 1280-81, 1327
- rise of, 1315
- Roman contrasted with, 1918
- stela: *see* Reliefs, grave, above
- terra-cotta, Tanagra, 1286
- women and treatment of drapery, 1286, 1330, 1331, 1332
- Greek Science, 1406-80
- Alexandrian and later, 2001-82
- influence on Roman, 1701
- modern debt, 1566-67
- Greeley, Horace, and Liberal Republicans, 4610

Green, J. R., on Anglo-Saxon communities, 2452
 —portrait, 1550
 Green and Blue Factions, Justinian, 2298
 Greenbacks, U.S. paper money, 1506
 Greene, Robert, on contemporary dress, 3565, 3566
 —on Italianate Englishman, 3550
 —on the poor, 3577
 —as Puritan, 3708
 Green International, agrarian party, 5073
 Greenland, discovery of, 2527
 —dical conditions, 110
 —longest-headed early type in, 211
 See also Eskimos
 Greenwich Hospital, 1237
 Gregorian Calendar, adopted in Japan, 4117
 Gregory, S. I., the Great, pope, 2325–27, 2455, 2703, 3017
 —Angustine sent to England by, 2327
 —on Caelestin Concordat, 3023
 —on pagan compromise, 3011
 —Papal See extended, 2485–86
 —pontificate of, 2270, 2328
 —story of Angli and, 2327, 2115
 Gregory II, pope, Apostles said to worship images, 3020
 —defence of image-worship, 2350
 —in Iconoclastic controversy, 2486
 Gregory III, pope, appeal for Frankish protection, 2480
 —Iconoclasm supported, 2350
 —quarrel with Laurentius, 2115
 Gregory IV, pope, brief on papal supremacy, 2100
 —death, 3008
 Gregory V, pope, 2503
 Gregory VI, pope, deposition, 2773
 —papal seat bought by, 2771
 Gregory VII (Hildebrand), pope, 2100, 2017–10
 —anti-pope imposed to, 2040
 —cellency of clergy introduced, 300
 —church reforms, 2018, 2056
 —romquest of England blessed, 2100
 —death in exile, 2191, 2050
 —Henry IV's conflicts, 2401, 2648, 2010, 2773
 —Norman alliance, 2015
 —papal power, 2100, 2013, 2015
 —pro-pontifical policy, 2773
 —on power of Church over State, 3023
 Gregory IX, pope, death, 2821
 —monastic reforms, 2281
 —papal decretals, 3019
 —relations with Frederick II, 2820, 2821, 2840
 Gregory X, pope, reign, 2831
 Gregory XI, pope, reign, 3003
 Gregory XII, pope, deposition, 3135–0
 —reign with two other popes, 3135
 Gregory XIII, pope, massacre of S. Bartholomew approved, 3170
 Gregory XIV, and Society of Jesus, 3085
 Gregory, S., Archbp. of Canterbury enthroned, 2006
 Gregory, of Tams, history of, 2430
 Grenville, Lord, American policy, 4027
 —resignation, 3907
 —his Stamp Act, 3907
 Grey, Earl, colonial secretary, 4001
 Grey, Sir Edward, and the Agadir incident, 3580
 —and League of Nations, 4017
 Grey, Sir George, 4612
 —arrives in S. Africa, 4619
 —governor of New Zealand, 4611
 Grey, Lady Jane, 3499
 Grey Friars: see Franciscans
 Grignani, Mme. de, 3002, 3093
 Grimaldi Caves, burial, Grotte des Enfants, 217
 —female statuettes from, 200
 —used by paleolithic man, 207
 Grimaldi Man, 217
 —artistry of, 247
 —skull compared with modern, 193
 Grime's Graves, sectional model, 271
 Grimm's Law, operation of, 327
 Grimoald, Lombard king, 2352, 2354
 Grimoald, Mayor of the Palace, 2351

Griseida, w. of S. Stephen of Hungary, 3151
 Griz, Jnan, rabism, 5029
 Groma, Roman surveying instrument, 2211, 2215
 Gransford, General, report on camp followers, 3623
 Gros, Baron, Napoleon at Arcola, 1181
 —Napoleon meeting Francis, 1189
 Grosseteste, Bishop, national church idea rejected, 3066
 Grossebo, province, Aldebrandeschil rulers, 2758
 Gross Schost, modern peasants' refuge, 5071
 Grote, George, on Alex. the Gk., 1127
 —on Athens and Macedonia, 103
 —portrait, 11
 Grotius, Hugo, father of International law, 3702
 —purpose of Mare Liberum, 3516
 Grottkorata, alder, foundation, 2602
 Grotto des Enfants, self-preservation ritual, 217, 356
 Group associations, the first, 187, 188
 Group marriage, women and, 300
 Grunwald, Matthias, painting of The Crucifixion, 3326
 Gryphon, in gold, from Mycenae, 730
 —on Minos fresco, 702
 Guadiana, r., Roman bridge, 2038
 Guanches, aborigines of Canaries, 3528
 Guano, discovery, Pacific coast, 1331
 Guardi, Francesco, painting, Blattu Bridge, Venice, 3013
 Guatemala, civilization, early, 2573
 —allotment of Cabrera, 1338
 Gudon, father unknown, 651
 —and mother goddess, Chataindag, 646
 —paint of Japanese, 132, 133, 523, 510
 —samples of 685, 618
 Guelph, family, origin, 2057
 —lion, emblem, 3212
 Guelfi and Ghibellini, period, 2751–2705, map, 2752
 —Romans share in struggle, 2775
 Guesolin, Bertrand de, wars with English, 2000
 Guesdo, Jules, socialist, 4987
 Guedeourt, tank at, 4818
 Gueux (Guegare), patriotic party Netherlands, 3170
 Guiana, blowpipe used in, 282
 —Rudolf's map of, 3576
 Guido, duke of Spoleto: see White Guidonian Hand, in music, 2050
 Guildhall (London), north entrance, 4126
 Guilds, 2018–20
 —Anglo-Saxon thanes', 2155
 —Baxter industrial, 3371
 —Babylonian, 582
 —craft, 2018
 —influence on Gothic architecture, 2385
 —Italian, first appearance, 2753
 —London rule, in, 3098
 —medieval commerce and, 2897–2920
 —merchant, 2890, 2018
 —in pre-Revolution France, 4117
 —Renaissance survival of, 3344
 —in Roman Empire, 2132–33, 2130
 —strikes, medieval, 2023
 —trade unions and, 4067
 See also Craft Guilds
 Guild Socialism, Owen and, 4071
 —Le Blanc and, 4083
 Guilhem IX, of Aquitaine, first troubadour, 2003, 3221
 Guillaume, Jaquette, feminist, 3901
 Guillotin, Dr., his guillotine, 4133
 Guillotine, The, 4038, 4133
 Guison, mayor of Rochelle, 3593
 Guiscard, Robert, 2015–16, 2003–04
 —granted Apulia and Sicily, 2506, 2015
 —Rome captured by, 2040, 2773–71
 Guiso, Henri, duke of, assassination, 3463, 3471, 3178
 —claim to French throne, 3471
 —Henry III's diabolic of, 3474
 —massacre of Huguenots, 3483–4
 —massacre of S. Bartholomew, 3165
 ——portrait by Clouet, 3477
 Guiso, House of, 3463, 3171

Guizot, Francois, French premier, 1161
 —dismissed, 1363
 —on Philip Augustus, 2881
 Gumbel-i-Kabus, tomb of Samanid ruler, 2781
 Gundstrup, sacrilegious bowl, 2218, 2221
 Gumbold, Burgundian king, 2258
 —emperor set up by, 2208
 —relations with Clovis, 2200
 Gunner, H.M.S., Q.31, 4655
 Gunpowder, invented by Chinese, 1196
 —medieval use, 2019, 2353, 2358
 Gunpowter Plot, conspirators, 3718
 Gutram, of Burgundy, assistance to S. Columban, 2593
 —reign and death, 2293
 Gupta Dynasty, in India, 2128
 —Brahmans under, 2100
 —prosperity under, 2106
 See also Chandragupta
 Gupta Empire, 2203, 2300
 Gurun, little monuments at, 718
 Gustavus III (Sweden), accession, 3911
 Gustavus IV (Sweden) deposed, 1102
 Gustavus Adolphus, 3586, 3588, 3630
 —death at battle of Lutzen, 3596, 3651
 —entry into Munich, 3595
 —invades Denmark, 3015
 —lands at Usedom, 3601
 —new military organization, 3613
 —at Stralsund, 3611
 —use of light artillery, 3613
 Gustavus Vasa, of Sweden, 3912, 1111
 —Hansic power broken, 3056
 Gutans, invaded Assyria, 141–82
 Gutenberg, J., printer, 3183, 3181–85
 —press of, 3200
 Guthrum, Viking, invaded England, 2001
 Guthrum, Pease of, Daneshow boundaries, 2110
 Guthrum's Fryth, 2107
 Guy of Dampiere, count of Flanders, French dealings, 2832, 3081
 Guy of Lusignan, king of Jerusalem, 2712, 2741
 —dynasty founded, 2814
 —ruler of Cyprus, 2711, 2811
 Guyon, Joannes Maria, portrait, 3868
 Guy's Hospital, a ward in 1725, 5016
 Guzman, Alonzo P. de, defence of Paria, 2081
 Gwallor, history, early, 3180
 —palace architecture, 3180
 Gwym, Nell, mistress of Charles II, 1001, 1002
 Gyges, king of Lydia, 800
 Gylippus, Spartan leader, against Athens, 1214, 1210
 Gymnasium, Greek, Athens, 1278
 —ruins at Delphi, 1314
 —washing, 1324
 Gymnastics, Greek practice and training, 1315
 See also Athletics
 Gypsies, emancipation 17th cent., 3158
 —Georgian fashion, 5018
 —in Hungary, 3157
 —mobility of, 418
 —music of, 3157–58
 —origin and entrance into Europe, 3158
 Gypsies, distribution, 101, 105, 107
 Gyth, death at Mastuga, 2713

H

Haarlem, siege, 3171
 Habbakuk, importance, 831
 Haakor, Colonel, 3581
 Hades, god, grotto, 1333
 —identified with Zeus, 1366, 1372
 Hadi, Khalil, assassination, 2112
 Hadramant, scattering difficulties, 165
 Hadrian, emperor, 1900–72, 1970, 1992
 —with beard, 1925–28
 —Christians and, 2170, 2181
 —Dacian ramparts, 1965
 —family, 1968
 —influence on art, 1920
 —mausoleum, 1971
 —peregrination, 1970–71
 —perpetual relief, 1972
 —portraits, 1925, 1969
 —temple in Rome, 1992, 1903

Hadrianople

Hadrianople, Roman defeat at, 2213
Hadrian's Wall, 1722, 2133
 —as frontier, 106, 1970
Hafstrfjord, naval battle in, 2524
Hait, primitive types, 272
Hagedorn, Baron von, 3950
Haggai, prophet, 1915
Hagiar Kim, labyrinth at, 611
Hagia Trada, royal residence, 763
 —sarcophagus from, plate, 755
 —sculpt from, 668
 —vases from, 766, 767, 769
Hague, The conference, 4571, 4573
 —and poison gas, 4765, 4769
 —court of International Justice, 1926
Hague Tribunal, 4574, 4576, 4926
 —Serbia's appeal, 4568
Ha-ha, invented by Kent, 4301
Haider Ali, sultan of Mysore, 3906, 4144
Haidra, reconstruction, 2262
Hair, in Aorunguian art, 198
 —in Australian natives, 209
 —in man and anthropoids, 183
 —in modern races, 209
 —of pygmies, 197, 209
 —and racial affinity, 196, 226
Hairdressing, 18th cent., 3975, 3977, 4223
 —Greek, 1258
 —Roman, 2012, 2013
 —Sumerian, 535
Haiti, 4330
 —colonisation of, 317, 3808
 —negro republic, 4321
 —U.S.A. suzerainty, 395
Hajjaj, Mahomedan general, 2351, 2355
Hakluyt, Richard, 3517
 —Voyages, 3567
Halberd, 2018, 2949, 2956
Halberdier, Charles, 2019
Halberstadt, Christian, Bishop of: see Christian of Halberstadt
Haldane, Sir Aylmer, in Egypt, 4642
Halder, Jacob, armorer, 2939, 2011, 2013
Hales, Sir R., in Peasants' Revolt, 3191
Halévy, Elie, on Methodist Revival, 4200
Halkand, Norse ruler, 2524
Halloarnasus, 1472, 1480
 —mausoleum, 1188-9, 1488-9
 —plan, 1053
Halifax, 1st Marquess of, on feminism, 3008
Hall, Charles, sociolism, 4081
Hall, Robert, evangelist, 4208
Hallam, Henry, on parliament, 3070
 —portrait, 4550
Hallam, Lewis, took drama to colonial America, 4018
Halle, Tilly at, 3047
 —university of, 3947
Hallajuh Chorus, Burney's description, 2957
Hallujah Victory, 2145
Hallor, A. von, physiology, 5017
Hallow, Edmund, and Newton, 3820
Hallstatt, burials at, 922
 —remains, 1510
 —pottery in, plate, 928, 930
 —salt mining settlement, 921, 923, 935, 934
 —swords, 938, 1516
Hallstatt Period, iron age, 935, 936-943
Halpa (Altoppo), 731
Hals, Franz, portrait of Descartes, 3824
Hal Badiean, rock chambers, 614
Hal Tardian, neolithic ruins, 615
 —temple pillars, 616
Hals (river), 717
 —boundary of Media, 1084
Hamann, J. G., and Sturm and Stress movement, 3959
Hamati, Hittite inscription, 592
Hambleton, cricket match in 1777, 4226
Hamburg, Haaseatic League in, 3050
 —and Napoleon, 4194
 —in Thirty Years' War, 3035
Hamanda, family, 2511
Hamidat Bares, 4577-70
 —military organization, 1037
 —Sicilian expedition, 1104
 —Spain invaded, 1055
Hamilton, Alexander, 4111

Hamilton, James, with We-ley, 4205
Hamitic races, Biblical account, 303
Hammarabi, 131, 646-47
 —Babylonia under, 567
 —code, 375, 5639
 —source of, 433, 521
 —women in, 372
 —and god, 618
 —portrait, 433, 572
 —Jimi-Sin and, 432
Hampden, John, 3665, 3724
 —Cromwell on, 3727
 —and ship money, 3665
Hampton Court, dining-room, 4248
 —Palace, great hall, 3441
 —pond garden, 4299
Hamzah, uncle of Mahomet, 2368
Hancock, W., steam coach, plate *f.p.* 1358
Handel, G. F., Hallehujah Chorus, 2957-58
 —portrait, 3957
Handforth Hall, 3491
Han Dynasty, 1701
 —bay-tel of, 111
 —Chinese power under, 2090-2107
 —Gai, 1681, 2106
 —founder, 1567
Hangebow (Kinsai), Marco Polo on, 3506, 3509
 —Oderic of Pordenoue on, 3508
Hanging, in 15th cent. England, 3157
 —at Wapping, 17th cent., 3816
Hanigabak, 592
 —conquered by Mitanni, 731
 —kingdom, 728
 —territory, 730
Hankow, anti-foreign feeling, 4002
 —foreign settlements, 446
 —treaty port, 4620
Hanneman, Adrien, portrait of Marvell, 3715
Hannibal, 1654-60
 —Alexander, compared with, 1418
 —Alps crossed, 1529, 1655
 —army, 1630-38
 —banishment and exile, 1501, 1630
 —Italy, effects on, 1712
 —Macedonian alliance, 1635
 —Rome, war with, 1655-61, 1680, 1760
 —Saguntum destroyed, 1583
 —Spanish campaigns, 1581
Hanno, the Carthaginian, treatise, 1888
 —voyage, 1180
Hanover, Britain loses, 4273
 —Elector on British throne, 3870
Hanover, Treaty of, 3894
Hanseatic League, 3040-61
 —Baltic monopoly, 2988-90
 —in Bergen, 3054
 —at Bruges, 3056
 —in England, 3056, 3059, 3060
 —and Flanders, 2905, 3056
 —and Ireland, 3060
 —Merchant Adventurers and, 2908
 —and Norway, 3054
 —and Portugal, 3057
 —and Scotland, 3060
 —and Spain, 3057
 —in Sweden, 3055
 —and wool trade, 2890
Hanania, Seianti, effigy, 1912
Han Yu, Chinese writer, 2530
Hapsburg, House of, 3290, 3159, 3583
 —Catholicism, 3744
 —dominions in 1660 (map), 3733
 —in Italy, 3885
 —in Switzerland, 3087-89
 See also Austria; Charles V.; etc.
Hapzeta, baron of Asyut, 643-4
Hapra, bull seal from, 450
 —Ludo-Sumerian culture, 429
 —pictographic script from, 450, 1065
Harbour, Alexandria, 1430, 1536-37
 —Canis, 2909
 —Cartage, plate *f.p.* 1014, 1615
 —La Rochelle, 3899
 —Roman, 2049, 2050
Hardianite, 2509
Hardia, J. Kair, 394
Harding, Warren G., with Indians, 4508
 —U.S. president, 4895
Harding, Viscount, in India, 4459
Hardy, Thomas, 4535, 5014
 —The Dynasts, 5016, 5018

Hastings, Marquess of

Hare, in Egypt, 494, 710
 —witches as hares, 3262
Harem, effect on dynasties, 1147
 —in Egypt, 688
Hare Noma, alabaster quarnes, 513
Hareleur, siege, 2051
Hargreaves, James, Jonny, 1348
Harrington, General, in Graeco-Turkish war, 4885
Harelek, castle, 2996
Harmodius, 1093, 1094, 1260
Harmony (in music), 2960-61
 —evolution, 2969
Harnack, Adolf, on Christianity and Mithraism, 2000
 —on early Church, 2175
Harold, English king, 2508, 2509
 —on Bayeux Tapestry, 2605, 2610
Harold Fairhair (Harfagr), reign in Norway, 2496, 2521, 2524
 —raids on Scottish islands, 2525
Harold Hardrada, 2520-27
 —invades England, 2509
Haroun (the Orthodox), Khalif, 2332
Haroun al-Raschid, 2412, 2424
 —and Charlemagne, 2318
Harpagus, victor, 1001
Harpalus, treachery and flight, 1409, 1411
Harpist, in Babylonian temple, 555
 —Egyptian, 498, plate *f.p.* 553, 751
 —English, 9th cent., 2958
 —7th cent., 2170
Harpocrates, statuette, 1507
Harpoon, Egyptian use, 548
 —Magdalenian bone heads, 249
Harpichord, construction, 2969
Harpy Tomb, Xanthus, 3040
Harraz, Assyria, assessment, 937
 —captured by Chaldeans, 832
Hari, 723-29
 —rivals of Hittites, 715
 —treaty with Subbittuluma, 731
Harrington, James, Oceana, 388, 3704
 —prophesied American independence, 394
Harris, General, at Seringapatam, 4448
Harrison, W., on Elizabethan effeminacy, 3505
Harrowing, medieval, 3078
Harsha-varahana, emperor, 2274, 2300
Harthacnut: see Hardekanute
Hartlepool, Germans bombard, 4842
Hartley, Sir H. B., on poison gas, 4769, 4765
Harvard, John, founded university, 4016
Harvard University, foundation, 4017
 —in 1739, 4016
Harvester Vase, Minoan work, 765, 767
Harvest Home, in Latvia religion, 1743
Harvesting, early implements, 285
 —in England, 2444, 2726, 3097
 —18th cent., plate *f.p.* 4218
 —medieval, 2726, 3078
Harvey, Gabriel, caricature, 3564
Harvey, George, Wilson's sponsor, 4719
Harvey, Major F. J. W., at Jutland, 4848
Harvey, Sir J., in Nova Scotia, 4604
Harvey, William, 3222-23, 3829
 —and circulation of blood, 3820, 5047
Hasan, Khalif, 2350-51
Hasan ibn Ali, Wazir: see Nizam ul-Mulk
Hasan-i-Sabbah (the Old Man of the Mountains), 2789
Hasdai, the Jew, Sancho and, 3290
Hasdrubal, son-in-law of Hamilcar, 1580-81
Hasdrubal, b. of Hannibal, 1591, 1061, 1063
Hashimites, kinsmen of Mahomet, 2358
Hasidim, in Jewish history, 1054
Haskall, Col., and Russian relief, 4971
Hasmonaeon Dynasty, 1708, 1954-55
 —kingdom, 1777-8
 See also Maccabaeans
Hasteln, European raids, 2523
Hastanbeck, Cumberland defeated, 3000
Hastenses, 1808
Hasting, Danish leader, 2004-05
Hastings, castle, 2714
Hastings, Marquess of, portrait, 4449

- Hastings, Warren**, Gullray satire, 3906
 — — impeachment, 3906, 4446
 — — in India, 3905, 1444
 — — portrait, 3901
 — — reforms and work, 411, 1212, 1595
Hastings, Battle of, 2697, 2714
 — — Norman army, 2723
Hateril, Roman tomb, 2211
Hathor, 361-62, 361, 1077
 — — gold identified with, 358, 359
 — — identity with Golden Cal, 1007
 — — protecting Menkama, 179
 — — sistra used in worship, 693
 — — symbol of heavens, 362
Hathub, abductor quarrels, 543
Hathuput, Queen, 372, 374, 650
 — — expedition to Lund, 353, 680
 — — Hebrew inscriptions, 511
 — — obelisk from Karnak, 702
Hatti, Hittite tribe, 717, 728
 — — name, 711
 — — portraits from Rameses temple, 728
 — — and Tiglath-Pileser I, 676
 See also Hittites
Hattusas (Hittite city), 593, 714, 710
 — — carvings, 728
 — — collapse, 801
 — — foundation, 429
 — — Indo-Europeanisation of, 807
 — — masonry, 721
 — — relief from, 726
 — — site, 720
Hattusili, Hittite king (c. 2000 B.C.), 120
Hattusili, Hittite king (c. 1280), 737, 801
 — — daughter's marriage (c. 1270 B.C.), 671
 — — religion, 728
Hauverk, 2927, 2928, 2929
Hawesville, Norman family, 2505, 2615
Hawlock, Sir Henry, at Lucknow, 1104
Hawoli, annexed by U.S.A., 4520
Hawaiians, racial affinities, 232
Hawk, in Borneo, 330
 — — sun god as, 743
 — — symbol of Horus, 422
Hawk City: *see* Huerfano
Hawke, Lord, work of, 111
Hawkers, in Athens, 2281
Hawkins, Sir John, trained Drake, 3512
Hawkins, Captain, account of Mogini Empire, 3771
Hawisford, Sir John, mercenary, 2051
 — — in Italy, 2976
Hay, Lord Charles, at Fontenoy, 3055
Hay, John, and open door policy, 4520
Haydon, B. R., Anti-Slavery Soc. 4402
Hayes, Edward, on Gilbert's death, 3575
Hayes, Rutherford, President of U.S.A., 4403, 4404
Haygarth, John, medical researches, 5014
Hay-Paunesfort Treaty, and Panama Canal, 4731
Hayter, Sir G., plg. of Parliament, 4432
 — — Queen Victoria, 4773
Hazael, defeated by Shalmaneser, 870
 — — murdered Ben-Hadad, 870
Hazlitt, Wm., on Locke, 4060
Head, classification, 630
 — — evolution, 226-27
 — — modern distribution, 231
Head-hunting, origin, 361
Health, Greek ideas, 1188
 — — progress of public, 5038-57
Health, Ministry of, 6055
Hearing, development, 120
Heart, sacrifice by Aztecs, 3309
 — — Stone Age, knowledge, 199
Hent, influence on civilization, 335
Heaven, Babylonian conception, 975
 — — Confucianist idea, 1225
 — — democratization of, 358
 — — Egyptian ideas, 382, 649-50
Heavenly Spheres, Greek view, 2081
Heavy Brigade, charge, 4374
Heberden, W., physician, 5043
Hebrew Language, 323
 — — alphabet, 1063
Hebrew Literature, 811
Hebrew Scriptures, and Egyptian history, 423
Hebrews, 792, 800, 805, 813-17
 — — under David, 816-17, 875
 — — kingdom of, plate f.p. 402
 — — portrait head from Memphis, 35
 See also Jews
Hebrides, Norsemen in, 2521, 2525
 — — Norway and, 2830
 — — Stone Age ways in, 270
Hebron, Judean centre, 812
Heclatour, of Miletus, 1170
Hector, and Andromache, 819
 — — Apollo on corpse of, 850
 — — naming, 1439
 — — journey, 817
Heclia, queen of Pthum, 850
 — — and Hector, 1339
Heddingheim, Mithras sanctuary, 2093
Heddingham Castle, 2732
Hedwig, queen of Poland, 3008
Hegesippus, printed title page, 3199
Heidelberg, Roman bridge near, 2010
Heidelberg Man, 118, 181
 — — diagrammatic plate f.p. 220
Heidelberg University, Jewitis control, 3128
Heekum, Bushman, 208
Heilbronn, League of, 3596, 3652
Heilno, H., and romanticism, 4319
Hejira, Moslem Era, 2466
Helen of Troy, elopement, 850
 — — at least, 818
 — — — hospitality, 819
 — — — as spinners and weaver, 811
Hole Stone, Stonehenge, 625, 628
Holgerland, ceded to Germany, 4561
Holmgard, Battle, 4835, 4839
Holodorus, writer, 1362
Holodorus, of Taxisia, Bannagar pillar erected by, 1502, 1505
Hollogabulus: *see* Vologabulus
Holothric Theory, 621
Holopolis, centre of Ita cult, 730
Holl, Bursuan beliefs, 1105-06, 1201
 — — medieval beliefs, 3010, 3014
Holl, Judge of, statuette, plate f.p. 3519
Holladi Periods, Greek Bronze Age, 611
 See also Myhan Culture
Hollas, development of, 883
 See also Greece, Ancient
Hollas, League of, 1406
Hollen, founder of the Hellenes, 1033
Hollens, first appearance of name, 1033
Hollens, 1031, 1083, 1305
Hollonistic Age, 1073-70
 — — history, 1401-16
 — — Italy and Sicily in, map, 1117
Hellenism, Athenian influence, 408
 — — in Far East, 1487-1506, 1953
 — — Judaism menaced, 1953
 — — modern cult, 1502, 1506
 — — in 16th cent., 4046
Hellenistic Philosophy, 2001
Hellenotamia, 1393, 1395
Hellespont, Athenian control, 1103
 — — Xerxes crosses, 1104
Hell Fire Club, 4213
Helmet, Black Prince, 2990
 — — Celtic, 1514
 — — derivation, 288
 — — in Great War, 2937, 4810, 4817
 — — of Greek warriors, 816, 1231
 — — Hallsstat, 938
 — — of household cavalry, 2935
 — — makers, 2910
 — — medieval, 2928-30, 2934-48, 2999
 — — Mycenaean, 787, 788
 — — Norman, 2606-07, 2721, 2927, 2928, 2937
 — — Scanderberg's, 3124
 — — Roman, 2191
 — — Sumerian infantry, 527
Helots, in Sparta, 1380-90
Helvetii, 832
 — — wars with Romans, 1770, 1783
Helvetius, C. A., influence, 4123, 1126
Hemp (hemp), in Babylonian, 581
Hen-ka, Egyptian priest, plate f.p. 553
Honku, righteous ruler, 617
Honoticon, of Zeno, 2258, 2340
Henrietta of Orleans (sister of Charles I), 4002
Henry I (the Fowler), emperor, 2190, 2490-2500
Henry II, emperor, 2503
Henry III, emperor, 2501-06, 2773
Henry IV, emperor, 2617-40, 2835
 — — at Canossa, 2618, 2649
 — — death, 2635
 — — deposition, 2640
 — — Gregory VII and, 2191, 2617
Henry IV—*cont.*
 — — papal quarrel, 2618, 2655
 — — rebellious against, 2650, 2655
 — — Rome attacked, 2619, 2773
Henry V, emperor, 2655-66
Henry VI, emperor, 2745
 — — marriage, 2705, 2735
 — — in Sicily, 2715, 2837
Henry VII, emperor, 3002, 3005-07
 — — Swiss dealings with, 3088
Henry, emperor of Constantinople, 2822
Henry I, of England, 2611, 2657
 — — and investitures, 2655
 — — marriage, 2658
Henry II, of England, 2739-40
 — — arrival on seat, 2928
 — — Becket and, 2739
 — — castle founded, 2716
 — — family descends, 2740, 2713
 — — French possessions, 3010
 — — Ireland annexed, 2710
 — — Jerusalem, relations with, 2701
 — — tomb, 2713
Henry III, of England, 2928
 — — tomb, 2831
Henry IV, of England, 3126-27
 — — justification, 3126
 — — ministers from Commons, 3058
 — — and piracy, 3893
 — — Richard I's surrender, 3126
Henry V, of England, 3128
 — — in France, 3128-29
 — — imperial ideas, 398
 — — siege of Rouen, 3129
Henry VI, of England, 3132
 — — as French king, 3129
 — — psalter, 381
Henry VII, of England, 3112, 3500
 — — barons crushed, 3185
 — — cartoon, 3298
 — — chapel of, 3110
 — — Order of S. George, 2976
 — — tomb, 3238, 3210
Henry VIII, of England, 3299
 — — armour, 2911, 2915-16
 — — church relations, 1506, 3312
 — — Defender of the Faith, 3314
 — — economic policy, 391
 — — extravagance, 3492, 3500
 — — at Field of Cloth of Gold, 3308
 — — foreign policy, 3311
 — — helmets, 2939
 — — navy, 3311
 — — Parliament under, 3658
 — — and piracy, 3893
 — — titling, plate f.p. 2927
Henry II, of France, 2081-5
Henry III, of France, 3470-1, 3472, 3173-1
 — — Guise murdered, 3478
 — — massacre of St. Bartholomew, 3105
Henry IV, of France, Henry of Navarre, 3403-65, 3532, 3831
 — — assassination, 3481
 — — conversion, 3178
 — — Edict of Nantes, 3179
 — — foreign policy, 3583
 — — government, 3581
 — — at Ivry, 3177
 — — marriages, 3105, 3099
Henry, king of Castile, 3099
Henry, king of Jerusalem, 2711
Henry, king of the Romans, 2823-21, 2830
Henry, duke of Austria (of Babenberg), 2736
Henry, duke of Bavaria, 2509-02
Henry, duke of Bavaria (d. 1138), 2657
Henry, prince of Castile, in Tunis, 3391
Henry, prince of Wales, armour, 2911
Henry the Lion, duke of Saxony, 2737, 2738
 — — accession, 2657
 — — defeat and exile, 2738
 — — Henry VI and, 2715
 — — marriage, 2737-38
 — — restoration, 2736
Henry the Navigator, Prince, 3133, 3529
Henry, Philip, on execution of Charles I, 3581
Hephaestion, of Alexandria, 2171
Hephaestus, work, 841-45, 847
Hepplowith, George, chair, 3218
Hera, goddess, 1306, 1374-75, 1370-81
 — — marriage, 1366-67, 1372
 — — vindictive spirit, 850

Heraclea, Venetian port, 3029-30
—*see* *light* at, 1576
Heracleides, of Pontus, 1187, 1181
Heracleitus, of Ephesus, 1453, 1470
1471, 1905
Heracleonas, emperor, 2352
Heracleopolis, dynasties at, 427, 543
—Libyan chiefs, 1015
Heracleopolitans, art patrons, 563
—and literature, 565
Heracles: *see* **Heracles**
Heraclean, count of Africa, 2202-03
Heracleidae, return of, 871, 984
Heracles I, emperor, 2273, 2347
—and Chosroes II, 2315
—coin as pendant, plate *f.p.* 2454
—death, 2352
—eclesiastical work, 2312, 2631
—Persian treaty, 2318
—Syria abandoned, 2317
—and wood for Cross, 2347-48, 2625
Heracles, t. of Emp. Heraculus, 2273
Heraculus, chamberlain to Valentinian
III, death, 2207
Heracles Constantinus, emperor, 2352
Herald, Greek and Roman, 2980
—medieval, 2980
Heraldry, 2980-83
Heracl, foundation, 1188
—origin, 1408
—selected by Persians, 3701
Herberstein, Sigismund von, 3923
Herbert, Lord, Elizabeth and, 3552
Heracleum, Argus Villa at, 2003
—destruction, 1800
Heracles, at banquet, 1332
—club, 270, 277
—on coins, 1401, 1612
—with Dorian chieftain, 933
—figure on plaque, 1719
—Hydra slain, 773
—lion skin, 298
—Roman worship, 1751, 1758
—singing Bushis, 1018
—supporting the heaven, 1191
Heracleum Mountains: *see* **Altai**
Herder, J. G., German writer, 3955, 3959
—ballads and folk songs, 3950, 4310
—humanist, 4073
Herdman, 222-25, 312-43
—Beduin, 222
—Egyptian, 555-56
Heresford, Roger, E. of, conspiracy, 2723
Hersey, in early church, 2320, 2330
—in Middle Ages, 3342
Her-Hera (Hirhor), high priest, 675
Hertuin, founder of Bee, 2011
Hermanic, k. of the Goths, 2103, 2213
Herman, mutilation of images, 1244
Hermann, of Luxemburg, rival emperor,
2010
Hermann, of Salza, Teutonic Knight,
2823, 2079
Hermes, identity with Anubis, 2087
—identity with Mercury, 1752
—of Praxiteles, 1302
Hermetic Writings, 2095
Hermiteage, of Coptic monk, 2276
—S. Columban, 2679
Hermits, early Christian, 2275
—Irish, 2070, 2070-80
—*See also* **Asceticism**
Hermocrates, Sicilian leader, 1240-50
Hermioneans, alliance with Rome, 1252
Hernali, submission, 1005
Hero, Greek usage of word, 836
Hero of Alexandria, 2070, 2071
——writings, 2000
Hered, the Great, 1950
—buildings, 2050
—family policy, 1870
—palace at Samaria, 1871
—temple at Jerusalem, 1950
Hered Antipas, as emperor, 2623
Heredes Atticus, 1903
Heredian, works, 2171
Heredians, in Byzantine costume, 2025
Heredotus, on the Achaeans, 870
—on Athenian women, 987
—Egyptian history, 423, 1021
—geography of, 1531
—on Homer's gods, 840
—on lake villages, 631
—on Medes and Persians, 1133, 1141
—portraits, 10, 1343

Herodotus—con'
—on the pyramids, 426
—on Sennacherib's disaster, 888
—style, 1342
—on Thracio-Phrygians, 861
—works and travels, 1472
—his world, 8
Heroic Age, Greeks in, 440, 835-851,
855, 1108
——signs of, 2210
—Teutonic and Greek, 2210
—*See also* **Homor**
Herophilus, of Chalcedon, 2001, 2077
Herr, General, war prophesies, 4800
Herrick, Robert, and puritanism, 3712
—title page of *Hesperides*, 3713
Herring, ancestor, 114
Herriot, Edouard, French premier, 4892
—and Geneva Protocol, 4931
Hertz, Heinrich, portrait, 1696
—and wireless, 6703
Hertzberg, Count, Prussian minister,
4084-85
Herten, head of Russian liberals, 4939
Herulians, tribe, 2207
Herzogovina, revolt of (1875), 4397
Hesi, riches from tomb, 501
Hesiod, his golden age, 359, 5086
—works, 991, 1311
Hesperides, the earthly paradise, 303
Hestia, worship and personality, 1267
Hesychius, on Dilbat (Delephat), 584
Hesiod, in ancient Greece, 373, 3985
Heser di nist, funerary gift, 409
Heslin, Johann, printing press, 3100
Hesekiah, 830-31
—submission to Sennacherib, 887
—tribute sent to Lachish, 831
Hidayoshi, Japan under, 3183, 3004
—Christianity persecuted, 3002
Hempel, of Nuremberg, death, 1700
Heraopolis, copper statues, 478
—and Horus cult, 424
—ivory carvings, 500
—use of the Scorpion, 497
—Quibell's excavations, 359
Hierapolis Syriae, 737, 738
Hieratic Script, evolution, 565, 1074
Hiero I, of Syracuse, 1104
—at Cumae, 1106, 1102, 1220
—Pindar and, 1342
Hiero II, of Syracuse, 1075, 1570-77
—Archimedes and, 2007
—death, 1590
Hieroglyphics, 23, 24
—Egyptian, 505, 1074
—Iltite, 693, 724-25
—Maya, 2574-75
—Rosetta Stone, 1086
Hieron: *see* **Hiero**
High Commission, Court of, 3668
High Court, judges, Edw. I, 2996
High Sea Fleet, inactivity, 4811
Highwaymen, in England, 4213
Hike, Egyptian magic, 563
Hilary, of Arles, claims primacy, 2184
Hilary, bishop of Poitiers, 2320
Hildebad, Ostrogothic king, 2260
Hildebrand, pope: *see* **Gregory VII**
Hildesheim, Romanists and Protest-
ants at, 3633
Hilliard, Nicholas, Q. Elizabeth, 3471
Hill, Octavia, and housing, 4409
Hill Terraces, Maya, 2581, 2583, 2585
Himera, Battle of (480 B.C.), 1105, 1627
Himera, Battle of (310 B.C.), 1410
Hinayana, Buddhist sect, 2398
Hindenburg, Paul von, becomes Presi-
dent, 4903
—in B. Prussia, 4749, 4751
Hindu Architecture, 2392, 2402-06
—Moslem style blended, 2399, 3173,
3179
—of the South, 3170
Hindu Culture, 2400, 2405-66
Hinduism, caste and, 2393-2407
—Muhammadanism and, 3185, 3178
Hindu Kshatriya, Alexander in, 1488
Hiadus, Decian monarchy, 2993
—under Delhi Empire, 2991-92
—literature of, 3176
—under Moslem rule, 3169
—origin, 3176
—philosophy of, 2403
Hinnins, of Hnea, Libyan centre, 1015

Hippalus, navigator, 1492, 2169
—voyage to India, 1980
Hipparchus, tyrant of Athens, assas-
sination, 1093-94, 1273
Hipparchus, of Nicaea, astronomer,
2080
—map, 2073
Hipper, Vice-Adm. von, 4813
Hippias, tyrant, 1093, 1175, 1119-20
—in service of Darius, 1096-97
Hippocrates, father of medicine, 1175-
77, 1560-67
—Arabic translation, 5040
—epidemic constitution, 3114
—oath of, 1476
—portrait, 1476
Hippocrates, of Chios, mathematician,
1178, 1470
Hippocrates, tyrant of Gela, 1104
Hippodamus, of Miletus, plans Piraeus,
1250
Hippo Diarrhytus, founded, 1177
Hipponeus, Athenian, 1253-54
Hippopotamus, Egyptian parable, 435
—in England, 110
—food for Kaxirondo, 233
—model from Beth-shan, 533
—in Nile Delta, 30-31
Hippo Regna, foundation, 1177
——ivalry with Carthage, 1178
Hiram, king of Byblus: *see* **Ahram**
Hiram, king of Tyre, 819
—tomb, 1178
Hiroshi, Moonrise at Soba, plate *f.p.*
4424
Hirtius, consul, B.C. 43, 1700
Hisham, Khalif (724-743), 2358, 2411
Hish, al-Akrad, Crusaders' fortress in
Syria, 2790
Hispania, Columbus at, 3145
Hispano-Mauresque Pottery, 3264, 3283
Hussarik, Bill of, 553-67
——bronze found at, 635
—city founded, 240
——nine settlements, 555
—*See also* **Troy**
Histiaeus, tyrant of Miletus, 1095-96
—supports Darius, 1091
Historians, types, 10, 11, 12
—in Victorian age, 4550
History, and archaeology, 141-144
—and biography, 19, 20
—and comparative anatomy, 164
—economic background, 387
—geography and, 334-35, 348, 1533
—language as index, 328
—materialistic theories, 387
—J. L. Myers on, 331
—philosophy of, 3022, 5085
—Roman influence, 2217
—sources of Roman, 1593-94, 1506
—G. M. Trevelyan on, 7-22
History of the Three Kingdoms, Chinese
epic, 3518
Hit, bitumen from, 568
Hitchins, Robert, pirate, 3804
Hittites, 589-94, 713-38
—Achaean alliance, 1031
—allies of, 794, 808
—Anatolian comparison, 228
—art, uniformity of, 717
—in Asia Minor, 1001
—in Cappadocia, 501
—empire, 589-94, 713-38
—fall of, 673, 708, 803
—map, 423, 714
—inscriptions, 1065
—language, 591, 593, 716
—and Mesopotamia, 433
—Mitanni and, 664
—and neighbour states, 714
—palaces copied by Phoenicians, 805
—in Palestine, 809
—priestesses, 371
—Rameses II and, 670
—records, 429
—rise and fall, plate *f.p.* 402
—Seti I and, 668
—and Thracio-Phrygian migration, 861
—tribute to Thothmes III, 662
—writing, 36, 2005
Hung-na, and Chinese wars, 448
Hizen, Japanese clan, 4414
Hobbes, Thomas, Leviathan, 3704-06
—on the Papacy, 407

Höchst, Battle of, 3639
 Hochey, in Greece, 1322
 Hodgson, Ralph, poetry, 5010
 Hoe, development into plough, 346
 —symbolism, on Egyptian mace, 197
 —use in primitive times, 218, 281, 285
 Hoffer, A., Tyrolean leader, 4193
 Hoffmann, General, German delegate at Brest Litovsk, 4955, 4956
 Hogarth, D. G., on Greece, 463-61
 Hogarth, William, The Cockpit, 4225
 —Garrick and wife, 4217
 —Gin Lane, 4262, 4265
 —Marriage à la Mode, 4234-35, 4244
 —The Rake's Progress, (vi) 4223
 —Walpole in Commons, 3331
 Hogue, H.M.S., torpedoed, 4833, 4834
 Hogue, La, Battle of, 3748, 3719
 Hohentriedberg, Battle of, 3891
 Hohennohn, Bombastes von: see Paracelsus
 Hohennohn, Battle of, 4090
 Hohenzollern, family, 2657, 2825
 —See also Frederick I, Frederick II, emperors
 Hohenzollern, family: see under Prussia; William II, etc.
 Hoi, family, Japan, 2980-90
 Hokkaido, Alnus in, 2389-92
 —Bridges of Bonds at Sano, plate f.p. 4121
 —map, 3482
 —Hot-Mongol races in, 411
 Holbach, Baron d', attack on Christianity, 4067
 —influence, 4125
 Holbein, Hans, caricature, 3350
 —portrait, John Colet, 3339
 —Thomas, 3334
 —George Glaze, 3659
 —Henry VIII, 3299
 —Sir Thomas More, 3336
 —woodcut, 3350
 Holberg, Ludvig, Danish poet, 4045
 Holkar, Jeewant Rao, 4449
 Holland, Calvinism in, 391
 —Holbert's policy, 3817
 —England, rivalry with, 411, 3741
 —free trade in, 4480
 —independence recognized, 3509
 —land sinking in, 25
 —and Louis XIV, 3741
 —and New York, 4006
 —race extension from, 315
 —socialism in, 4088
 —and William II, 4910
 —See also Netherlands
 Holmes, Sir G. J., Phoenix Steel Works, plate f.p. 4772
 Holocene: see Pleistocene
 Holstein, duchy, 15th cent., 3134
 Holy Alliance, Alexander I and, 4253
 —ideas, 3701
 Holy Club, nickname, 4205
 Holy Communion, Luther on, 3346
 —reformers administering, 3348
 Holy Grail, vision of, 2972
 Holy Heart, or Hestia, 1367
 Holy League (1511), 3300
 Holy Roman Empire, 2835-16
 —Charlemagne's idea, 2427
 —civil wars in, 2422, 2841
 —coronations, 2480, 2769, 2837
 —crowns, 2354, 2489
 —disintegration of, 2845
 —dissolution, 408
 —foundation, 407, 2410, 2410-20, 2751
 —Frederick II and, 2835-40
 —geographical conditions, 2836
 —Germany and, 408, 2837, 3049, 3614
 —(18th cent.) 3043
 —history, early, 2488-91, 2657
 —ideas about, 409, 2252, 2835
 —Italy under, 2751, 2759, 2830
 —and nationalism, 3006
 —under Otto the Great, 408, 2751
 —and Papacy, 2481-91, 2774-75, 2836-38
 —Frederick I's time, 2737-38
 —Henry IV's time, 2400-91
 —papal victories, 2819, 2823
 —reasons for, 2420, 2835

Holy Roman Empire—cont.
 —Reformation and, 409
 —regain of, 2837
 —restoration in Germany, 2496, 2498
 —rise and fall of, plate f.p. 402
 —in 17th cent., 3033
 —Stellan possessions, 2837
 —in Thirty Years' War, 3019
 Holy Spirit, and Godhead, 2331
 Homage, in Byzantium, 2018
 Home, Major S. M., on artillery, 4317
 Homer, Apollonius of 1338, 1920
 —commentaries on, 2168
 —estimate, 13, 802, 853
 —Greece of, 945
 —Iliad, 1337
 —literary influence, 872-73
 —on Mycenae, 773, 777
 —Odyssey, 940, 1337
 —rediscovered, 4034
 —See also Heroic Age
 Homestead Act, U.S.A., 4602
 Homocionous and Homocous, meanings and creeds based on, 2330, 2335
 Homs, desolation, 732, 733
 Honan, female victims, 4646
 Honan, monastery founded, 2681
 Hondius, Jodocus, Magellan Strait, map, 3533
 Honduras, Maya influence, 2588
 Hong Kong, reded to British, 4270, 4626
 Honorat, appeal to Attila, 2207
 Honorius, Flavius, emp., 2206, 2202-41
 Honorius I, pope, charter claimed by Cambridge University, 3020
 —on music at Rome, 2489
 —and patriarch Sergius, 2312-13
 Honorius III, pope, and Fredk. II, 2810
 —and Roger of Sicily, 2656
 Honorius, antipope, 2506
 Honour, Court of the, 3722
 Honveds, military service, 3157
 Hood, Admiral, at Jullund, 4851
 Hood, Thomas, 4548, 4549
 —Song of the Shirt, 4105
 Hook-worm, lethargy due to, 4497
 Hooper, John, on his daughter, 3109
 Hoorno, Count, Dutch patriot, 3467-69
 —execution, 3469
 Hophra, Pharaoh, rule, 1016
 Hopkey, S. C., and Wesley, 4205
 Hopkins, Matthew, Wilhelmshut, 3261, 3263
 Hops, culture (16th cent.), 3444
 —use, (15th cent.), 3442
 Horace (Quintus Horatius Flaccus), 1888, 1891, 1892
 —on Greek culture, 1911
 —influence, 2245
 —interest in sports, 2015
 —as literary critic, 1892, 4036
 —on Roman decadence, 1898
 Horatius, trial, 1800
 Horemheb, Egyptian king, 607
 —and Atomism, 751
 —statue, 668
 Hormisdas, Persian prince, 2293
 Hormones, functions, 305, 306
 Horn, Count, Swedish general, 3648
 Horne, Herbert, on type, 3198
 Hornos de la Peña, Aurignacian drawing, 205, 258
 Horse, armour, 2932, 2936, 2955
 —of Maximilian I, 2942
 —medieval, 2931
 —16th cent., 2935
 —Barbary, 342, 1173
 —Chinese painting, 1197
 —domestication, 225
 —evolution, 132, 133, 134, 136
 —introduction into Egypt, 486
 —Europe, 210
 —S.W. Asia, 222, 226
 —Magdalenian drawings, 253-55, 256
 —in Mycenaean fresco, 787
 —painting, Alluvium, plate 263
 —Fou-de-Gaume, 259, plate 264
 —pallion riding, 3153
 —prehistoric rock relief, Cap Blanc, 252
 —shire, used by knights, 2607
 —spoil of Shalmaneser, 879
 —war, introduced by Hyksos, 435
 —worship of by Indo-Aryans, 237

Horse litter, 15th cent., 3453
 Horse race, in Greece, 1321
 Horshoe, superstition, 1020
 Horsey, Jerome, envoy to Moscow, 3923
 Hortensius, Roman dictator, 1651, 1709
 —law from, 1420, 1653
 —marriage, 1830
 Horu: see Dru
 Horns, hawk-headed god, 401, 616, 162;
 —king, incarnation of, 498
 —leader of invaders, 422
 —on pectoral, 559
 —Ra combined with, 514, 711
 —supersedes, 426
 —temple at Isfah, 1018
 Horynjl, Buddhist temple, 2391
 Hosea, as reformer, 829
 Hoshea, king of Damascus, 829-30
 —revolt against Shalmaneser V, 845-6
 Hosins, Constantin's chaplain, 2189
 Hospital, in Byzantium, 2612
 —in 18th century, England, 5011, 5015
 —King's College, modern ward, 5056
 —Roman invention, 2240
 —military, plan, 2241
 —in 13th cent. Europe, 3115
 —Westminster, sodium treatment, 5038
 Hospitality, in Heroic Age, 851
 Hospitaliers: see Knights Hospitaliers
 Hotentots, 4615
 Hule, 356
 Hougue Bio, La, dolmen, 269
 —Neolithic tomb, 269, 270
 Hongkong, 1793, 4169
 House, foundation sacred, 409
 —Alnus, 692, 770
 —model, from Mycenae, 789
 —in Ur, 532
 —See also Housing and under Architecture of specific civilisations, e.g. Babylonian; Egyptian
 House, Edward M., 4719, 4718
 —League of Nations, 4017,
 —and Peace Treaty, 1875
 Housecarles, at Hastings, 3607
 Household Cavalry, armour, 2936
 House of Silver, Egyptian treasury, 400
 Housestands, Hadrian's Wall, 1722, 2138
 sanitation, 2652, 2653
 Housing, in Greece, 1287
 —in 18th century England, 4221
 —Germany, 3672, 3073
 —Industrial Revolution and, 4361
 —reform in, 4400
 —in Roman times, 2000, 2010
 —in Soviet Russia, 4040
 Howard of Effingham, Lord, and Armada, 3515
 —at sack of Orléans, 3517
 —ship, 3544
 Howard, Mrs., patroness of letters, 1216
 Howe, Sir William, in America, 3009
 Hritsino, S., church, 3311
 Hrut, in Icelandic Saga, 2155
 Hsien Fung, Chinese emperor, 4658
 Hsion-pi, Tartar race, 2544
 Hsiung-an, invaded China, 2090
 —See also Huns
 Hsuan Tsang, Chinese pilgrim, defence of Buddhism, 2401
 Hsuan Tsang, Chinese, emp., 2515, 3394
 —and Chinese drama, 3516, 3517
 Huamaco, in S. America, 2592
 Huascer, Inca chief, 3395
 —claim to throne, 3388
 Huayna Capac, Inca ruler, 3381
 —empire under, map, 3381
 Huayna Picchu, peak, Mexico, 3387
 Hubertusburg, Treaty of (1763), 3902
 Hno, Abbe, on Christian and Buddhist ritual, 1506
 Huchtenburgh, J. Van, artist, 3758
 Huddington Court, 3491
 Hudson, W. H., Epstein's memorial, 5036
 Huerta, Victoriano, president of Mexico, 4727, 4728, 4730
 Hugh Capet, King of France, 2507, 3008
 —Norman assistance, 2606
 Hugh the Great, Duke of the French, 2506, 2606
 Hugo (German jurist), and communism, 4079
 Hugo of Provence, claims Italy, 2770

Hugo, Victor, 4311, 4312
 —as royalist, 4290
Huguenots, 391, 3161-65
 —in Brandenburg, 3750
 —concessions to, 3470
 —disruptive tendency, 3611
 —under Henry IV, 3581
 —at La Rochelle, 3465
 —Massacre of St. Bartholomew, 3465, 3466
 —revocation of Edict of Nantes, 3744
 —Richelieu and, 3591
 —in S. Africa, 3763
 —theory of government, 3608
Hui Ti, Chinese emp., 3513
Huitzilopochtli, Aztec god, 3365-66
 —shrine, 3365
Huizinga, Dutch historian, 2984, 2986
Hulagu, Mongol chief, 2817, 2819
 —assassins extirpated, 2821
 —Bagdad besieged, 2821, 2824
 —conflict with Bycen, 2850
 —death (1255), 2832
Humanism, 3234, 3322-23
 —Confucian teaching, 1198
 —in England, 3332, 3336
 —Greek, 1102
 —in Italy, 3216
 —and Renaissance, 3251-52
 —in Renaissance architecture, 3250
Humanitarianism, 19th cent., 4399-4410
Humayun, Mogul emperor, 3307, 3309, 3706
 —death, 3481, 3707
 —owned Koh-i-noor, 3775
 —tomb of, 3784
Humbaba, ogre in Gilgamesh epic, 580
Humbor, pirate ships off, 3302
Humboldt, Caroline von, correspondence with Wilhelm, 3961
Humboldt, Wilhelm von, 3061, 3962
Hume, David, 4669, 4674
 —on Whitechapel's preaching, 4200
Hume, Joseph, 4669, 4670
Humiliati, order, in Lombardy, 3203
Hu-nan, cultivation in, 445
Hundred Years' War, 3090-3002, 3125-3
 —a national war, 3024, 3007, 3010
 —peasants in, 2073
 —trade and, 2904
Hungary, 9th-19th cents., 3140-63
 —Agriculture, 6072
 —and the Balkan States, 4983
 —Christianity in, 3150
 —counter-reformation in, 3327
 —crown of, 3151
 —and Golden Bull, 3152
 —Great War and, 3163
 —Hapsburgs and, 3160, 3162, 3763
 —Hussites in, 3161
 —independent state, 3162, 4307
 —language, 320
 —League of Nations and, 4926
 —Maria Teresa in, 3891
 —Matthias Corvinus as king, 3688, 3589
 —Poland and, 3124
 —rising of 1848, 3102, 4367
 —succession difficulties, 3004, 3008
 —Treaty of Trianon and, 4877
 —Turks in, 3150, 3162, 3480
Hung Wu, emperor, 2990, 3513
 —unusculum, 3511
Hunio Doara, Rumanian, castle, 3154
Hunserio, son of Gelseric, 2255
 —marriage, 2208
Hunold, ruler of Aquitaine, 2415
Huna, 2205-07, 2470, 2478
 —in Europe, 2198, 2201, 3147
 —and Goths, 2213
 —in India, 2300
 —origin, 2000, 2100, 2200
 See also Attila; White Huns
Hunserio: see Hunserio
Hunt, Henry, Radical leader, 4282
Hunter, John, and medicine, 5047, 5048
Hunter-artists, 205, 215-16
 —compatriots, 193, 457
 —subjects, 200, 269
 See also Cave Art; Primitive Man
Hunter's calendar, basis, 298
Hunting, in Assyria, 661-69
 —Egyptian, with cat, 710
 —Chiosroes II, 2306
 —costume, 548, 551
 —pre-dynastic, 453, 484, 485

Hunting—cont.
 —cland. Bushman painting, plate 293
 —in Heron Age, 547
 —Hittite, 726
 —Hion, Tutankhamen, 699
 —Minoan, 786
 —by Moguls, 3782
 —prehistoric, plate, 201-02
 —primitive methods, 188, 276-83
Huntingdon, Selina, Countess of, 4216
Hunyadi, Janos, 3154-56
 —Belgrade defended, 3139, 3156
 —castle, 3154
 —at Ko-sovo, 3124
 —regent, 3140
 —Turkish wars, 3124, 3155
Hunyor, Magyar chief, 3148
Hun-yu, ancestor of Huns, 443
Hu-pek, cultivation in, 445
Hurdy-gurdy, medieval, 2964
Hurst, Sir Cecil, and League of Nations, 4919
Hurstmonaux Castle, 3435
Husain, son of Khalif Ali, 2351
Husain Shah, king of Bengal, 3477
Husbandry, in Med. Europe, 3078
Huakaon, William, death, 4356, 4357
 —as financier, 4475
Huss, John, condemnation, 3136
 —doctrines, 3070, 3136
 —importance, 3160
 —Luther influenced, 3077
 —martyrdom, 3076
 —as national hero, 3077
 —reformation, 3077
 —representation, 3075, 3076
 —works, 3070-77
 —and Wycliffe, 3076-77, 3136
Hussites, 3160-61
 —war of, 3077, 3137
Hut, of grass, Nigerian, 234
 —Negro, in Funt, 682
 —neolithic, in Italy, 612
 —Danubian parallels, 903
 —Sumerian, 513
Hutcheson, Francis, philosophy, 4051
Hutchinson, Lucy, portrait, 3709
 —on Puritanism, 3708
Hutzen, Ulrich von, 3311, 3335
Huvakshatara: Median king, 1137
Huxham, John, and disease, 5043, 5044
Huxley, Aldous, poet, 5019
Huxley, T. H., automaton theory, 4531
 —on consciousness, 4531
 —and evolution, 4530
 —and philosophy, 4522
 —portrait, 4522
 —on progress, 5037
 —writings, 4551
Huy, vizier to Tutankhamen, 681
Hwang-ho and Chinese civilization, 442
Hyacin, in Britain, 110, 136
Hyacine, 134
Hyacynthos, reconstruction, 128
Hyades, battle of, 1408, 1444
Hyderabad, 3798
 —cist-grave at, 452
Hyder Ali: see Haider Ali
Hydra, slain by Heracles, 773
Hydraulics, Roman knowledge, 2044
Hydrometer, re-invention, 36
Hydrosphere, 70
Hydrostatos, of Archimedes, 2067, 2069
Hygieia, goddess of health, 1370
Hygiene, medieval, 3114
 —modern, 3117, 5054-57
 —naval and military reforms, 5047
Hykoo (shepherd kings), expulsion, 435, 1095, 1097
 —in Nile Delta, 428, 434
 —identified with Israelites, 435
 —introduced horse into Egypt, 435, 486, 683
 —Joseph's theory, 814
Hykoo, Dorian tribe, 983
Hykoo, church carvings, 2517
Hyllus, son of Heracles, 983
Hymans, Paul, and League of Nations, 4926
Hymnology, Byzantine, 2631
 —Wesleyan, 4207
Hypatia, death, 2206, 2334
Hyperboreans, Herodotus story, 1532
Hyphasia, Alexander at, 1408, 1445
Hypocaust, system of heating, 2123

Hypostyle Hall, Karnak, 705, 745
 —reconstruction, 692
 —Ramesseum, 696
Hyrcania, 1989-90
Hyrcanus I, Jewish ruler, 1953
Hyrcanus II, Joha, 1955
 —Pompey's support, 1778
Hystaspes, father of Darius, 1055
Hysteria, after Black Death, 3116

I

Ialysus, Alaksandras, prince, 736
 —Minoan settlement founded, 786
 —seal of Amenhotep III, 785
Iana, tribute of, 827
Ibanez, Colonel, governing Chile, 4332
Ibans, Borneo, ritual, 349
 —superstitions, 349, 351
Iberian Peninsula, ancient geography, 1579
 —Modern sway in, 2400-10
 —Romanisation of, 1710
 —Saracen conquest, 2346
Iberians, in Spain, 3267
Iberia, River (Ebro), 1579-80
Iber, drawings, Akhetaton, 686
 —in predynastic Egypt, 486
 —on Stone Age lamp, 256
Ibis, divine (Thoth), 647
 —Egyptian painting, plate f.p. 552
Ibn Bajja: see Averroes
Ibn Baluta, on Chinese shipping, 3514
 —on Zaiton, 2909, 3510
Ibn Firnas, inventions, 3291
Ibn Jubair, account of Palermo, 2701
 —geographical works, 3290
Ibn Khaldun, on style in literature, 3290
Ibn Tufayl, Moorish philosopher, 3292
Iba Zaidun, of Ordoval, 3290
Ibrahim, son of Mehmet Ali, 4271
 —Sultan of Turkey, 3602
Ibrahim ibn Imal, gov. of Hamadan, 2782
Ibrahim Shah, defeat at Pasipat, 3167, 3176
Ice Age, 45, 110, plate f.p. 220
 —effects of ice retreat, 210, 220
 —in Great Britain, 135
 —loss from, 193
 —modern conditions compared, 192
 —in Scandinavia and Baltic, 2214
 —to-day in Switzerland, 186
Iceland, colonisation of, 2525, 2528
 —sagas of, 440
Icelandic, archaic character, 327
Ieni, revolt against Romans, 1857
Iethyosaurus, 127, 130
Ieonium: see Konin
Ieonoclasm, 2358, 2625-26
 —Gregory II against, 2359
Ieonoclasts, defacing image, 2358
Ieo III's edict, 2358, 2480, 2625
Nicaea Council restores image worship, 2473
 —Papacy freed from Constantinople through, 2486
Icona, in Orthodox Church, origin, 2625
Ida, Dardanians from, 801
 —mines, Troy's access to, 854, 859
Idaho, admitted to Union, 4507
Idolium, inscription on bronze, 1066
Idealism, and modern science, 5011
Ideals, and their meaning, 1184
Ideas, Platonic doctrine, 1490, 1479
Ideograph, significance of the, 298
Idolatry, Jewish opposition to, 2173
 —Moslem prohibition, 3177
Idomeneus, Achaean chief, 789
Idrial, geographical work, 3290
 —patronage of Roger II, 2541, 2703
Idumeans: see Edom
Ieyasu, founded Tokugawa shogunate, 4412
Ignatius, patriarch, deposed by Emp. Michael, 2425
Igor, Prince (941), Constantinople attacked, 2930
Ikh, in Egyptian religion, 643
Ilik, title of Karakhanid kings, 2779
Iliad, of Homer, 1337
 —on Greek vases, 15, 998, 1041, 1270
 —historical value, 835-51
 —Pope's translation, 1839
 See also Homer
Ilium, bishopric of, 807

Ilumina, allies of Hittites, 808
Ilchen, Mongol empire, 2822, 2833
 --map, 2819
Ilahun, Cretan pottery from, 501
 --Middle Kingdom jewelry, 554
 --map, found at, 511
 --plan of, 530
Ilmes: see *Enfil*
Ilumination (Aufklärung), German movement, 3047
Illyria, Alexander the Gt. in, 1100, 1107
 --Romans suppress piracy, 1581, 1671
Illyrians, application of name, 917
 --culture of, 918-19
 --disappearance of, 2478
 --first to use iron in Europe, 917
 --invasion of Balkans, 915
 --invasions of Greece, 988
Image worship, forbidden in early Church, 2523-21, 3012
 --see also *Iconoclasm*
Imgle, copper relief, 512
 --lion-headed eagle, 535
Imhotep, first recorded physician, 5039
Immigration, crises in early civilizations, 438-41
 --restriction of, U.S.A., 306
 --in U.S.A., 4500
Immortality, Chinese belief, 2101
 --Egyptian belief, 3, 2089
 --Neolithic belief in, 618
 --quest of Gilgamesh for, 689
Immunity, Jenner the doctor, 5040
Impeachment, method, 3009
Imperial Conference, constitution, 4624
 --1911, 4621, 4625
 --1922, and equality of status, 4611
Imperial Diet, history, 3677
Imperialism, ancient Greece, 1387-88
 --Oriental, 1387, 1388
 --*Albanian*, 1545
 --British, Elizabethan origin, 3551
 --commercial and religious motives, 16th cent., 410
 --in economic development, 395, 413
 --modern, 2252
 --Roman, 1892-78, 2251
 --terms of success, 1490
Imperial Legatos, under Charlemagne, 2431
Imperium, original meaning, 307
Imports, British, control during Great War, 4691
Impressionists, last of romanticists, 5022
Imprisonment, under Louis XIV, 3843
 --in Middle Ages, 3455
 --Russia, Bolshevik, 4901
Inayatullah, at Afghan Court, 4899
Inca Architecture, 3379-83, 3387, 3388
Inca Empire, civilization and history, 3305-06, 3378-88
 --conquest by Pizarro, 3305, 3388
 --establishment, 2591, 3378
 --pre-Inca culture, 2591, 2590-99
 --Quito, capture, 2333
Inceuse, Egypt, imports from Pant, 353, 562, 670
Inceuse-bowl, Ming, 3523
Income, average, post-war, 5007
Incredibles, costume, 4116
Indefatigable, H.M.S., at Jutland, 4849
Independence, in colonial America, 4016
Independence, Declaration of, 3009
 --Franklin and, 4078
Independent Labour Party, founded 1893, 391, 4987
Indeterminacy, Boddington and, 5004, 6008
 --objections to theory, 5011
India, Alexander in, 1408, 1443
 --invasions by, 1488
 --after Alexander's death, map, 1682
 --Aryan invaders, 237, 317, 357, 439, 447, map, 419, 1201
 --political development, 2393
 --religion, 1201, 2393
 --Asoka's empire, 1587-88
 --Brahmanism, 2392-2407
 --Buddhism in, 1204-19, 2400
 --Greek art in, 1495-1501
 --caste system of, 237-38, 453
 --origin, 1202-03, 2392-2407
 --Chandragupta, dynasty and empire, 1415, 1490, 1687, 2128, 2390: see also *Guptas below*

India—*cont.*
 --coins, punch-marked, 1195
 --commerce, medieval, 2000-10
 --with Flanders, 2300
 --cultures, clash of, 411
 --Durris, in time of, 401, 1090
 --harmes, 3172, 1471, 4472
 --Ghaznavid, rule, 2750, 2780
 --golden age: see under *Moslem Empires, below*
 --Graeco-Buddhist principalities, 1190-95, 1701
 --Greece, early influence on, 1506
 --Greek coins, 1491, 1491
 --culture in, 1491-1501, map, 1190
 --Guptas, dynasty, 2200, 2271, 2396: see also *Asoka*; *Chandragupta*
 --religion under, 2401, 2102
 --Hinduism, 2392-2407
 --Iran invasion, 2200
 --Java, early communications, 2105-07
 --Kushana, dominion, 1901, 2128, 2209
 --Greek culture under, 1499, 1501
 --Mauryan empire expelled, 1115
 --Magadha kingdom, 1587, 2209: see also *Maurya below*
 --Mauria power, 3703, 3778, 3793
 --fall, 3797
 --Maurya kingdom, 1411-15, 1480-91
 --culture, 1495
 --Maunder's rule, 1401
 --Mogul empire, 3764-99
 --monasticism, 2280
 --Mongol invasion, 3172
 --Moslem empire, 2833, 3161-99
 --founding, 2750, 2901-93, 3167
 --power, first contact, 2350
 --Mistohus, 3176
 --overland route to, Tudor expeditions, 3571
 --peasants, early conditions, 3171
 --pre-Aryan, 450
 --primary forest (map), 136
 --races, 34
 --race distribution in, 232
 --Rajput: see *Rajputs*
 --Roman coins, 1492
 --commerce, 1492, 1087-88, 2135
 --symbol, 3987
 --trade routes, map, f.p. 1962
 --Sumerians in, 450-1, 512
 --Tamerlane's invasion, 3123, 3175
 --villages, number of, 237
 --White Hun invasion, 2271
 --women in, 378
India Act, passed by Pitt, 3000
India, Modern, British and French at war in, 3889
 --British, beginnings, 3601
 --rule in, 414, 4460-71, 4628
 --colon goods from, 4317
 --dynasty in, 4901
 --E. India Company, 1443-15, 4591
 --efforts for democracy, 5080
 --in Great War, troops, 1040
 --Johns League of Nations, 4890
 --Morley-Minto scheme, 1474, 4579
 --Napoleonic wars expedition, 1487
 --Portuguese empire in, 411
 --post-war developments, 4642
 --self-government, 4613
 --under Western rule, 1443-74
 --Xavier, Francis, in, 3692
Indian Architecture, Arabic influence, 3177
 --Buddhist, 1207, 1211-15, 1218-19
 --Hindu, 2399
 --Graeco-Buddhist, 1500
 --Hindu, 2392, 2402-06, 3170
 --Greek contrast, 1202
 --and Moslem blend, 3178-80
 --Mogul, 3370-71, 3375, 3785-90
 --Moslem, 3166-71, 3177-80
Indian Army, in Mesopotamia, 1753
Indian Art, on Chinese soil, 2510
 --Greek influence, 1495, 1496-1501
 --Hindu, 2395
 --Mogul, 3764-99
 --Moslem, 3177
Indian Civil Service, formation, 4107
Indian Corn: see *Maize*
Indian Mutiny, causes and conduct, 4402-05
 --ends Mogul Empire, 3790
Indian Congress, 4473, 4474

Indian Ocean, ancient pearl traffic, 174
 --formation, 100
 --navigation, ancient, 1409, 1489
 --struggle for power in, 3516
Indians, Egyptian portrait heads, 5th cent. B.C., 35
Indian Sculpture, Buddhist, 1216
 --Gandhara school, 1197-99
 --Hindu, 2398, 2400
 --influence on Chinese, 2510-19
India Office, foundation, 1167
Indo-European, theory of universe, 19
Indo-European, Luther's teaching, 4353
 --medieval, assertion of, 3215
 --Reformation's affirmation of, 3351-55
 --Renaissance characteristic, 3079
Indo-Aryan, Africa, 224
 --conquest of India, 237, 148-150
 --immigration date, 452
 --Patriot, 221
 --typical blonde, 410
 --see also *Aryan Race*
Indo-European languages, 806-8
 --Greece, introduction, 985
 --Latin influences, 1879
Indo-European races, religion, 1124
Indo-Germanic and *Finno-Ugric*, 327
 --Latin and Greek relationship, 327
 --numerical system, 328, 329
 --range, maps, 324-5
 --Semitic relationship, 327
Indo-Germanic peoples, religion, 1365
Indonesian, live-asking method in, 286
Indo-Syrian king, figure, 1796
Indo-Syrian culture, 1501, 512
Indra, Indian god, 655
 --on Hoshang-Kut tablets, 807-09
 --worshipped by Arian, 503
Indulgence, Declaration of, Louis de Querolles and, 4003
Indulgences, Holborn caricature, 4559
 --Luther's denunciation, 3902, 3910
 --scale for sales, 3351
Indus, Alexander's bridge, 1413
 --expedition, 1409
Industrial Age, apprentices, 1530
Industrialism, 431-61
 --effect on Victorian literature, 1514
 --in 18th century England, 4220
 --and the middle classes, 4126
 --18th century growth, 5063
 --post-war chaos, 4873
 --in Russia, 4411
 --trade unions and, 4107
 --U.S.A., transformation, 4187
Industrial Revolution, 4100, 4311-61
 --beginnings, 8003
 --in France, 4116
 --and labour unrest, 4296
 --Methodism and, 4202
 --in New England, 4487
 --in Southern States, 4407
 --and Train Unionism, 4698
Industrial Workers of the World, 4519
 --origin, 4504, 4500
Industry, French, under Convention, 4135
 --pre-Revolution, 1117
 --restrictions on, 4120
 --Revolutionary, 1130
 --German expansion, 3979
 --infant, theory of, 4182
 --medieval, 2917, 3433
 --in Roman Gaul, 2139
 --Russia, ruble, Bolshevik, 4964
 --women in, 368, 381
Ino, king of W. Saxons, 2453, 2102
Infantile, Friar, 8th century, 3011
 --in Greece, 371
 --Icelanders, 11th century, 3011
 --Latin, 4155
 --medieval compromise, 3014
 --prohibition by Mahomet, 2377
Infantry: see *Army*; *Soldiers*
Infectious Diseases, ultra-organisms cause, 3110
 --notification, 18th cent. system, 5041
 --16th and 17th cent. teaching, 3115
Influenza, cause unknown, 3110
 --infection cause, 3101
 --outbreak of 1918, 3110
Ingo, Dean, on progress, 5000
 --on spiritual Roman Empire, 107

Ingeborg of Denmark, 2746
 Ingres, J. A. D., influenced by J. L. David, 4315
 Inheritance, English law, 2163
 —Roman law of, 2163
 Initiation ceremonies, Australian, 210
 Ink, Roman, 2166
 Inkerman, battle of, 4374
 Inlay work, Gothic, 2222
 —Persian, 2317, 2318
 —Samaritan, 3341
 Innocent I, pope, 2484, 2774
 Innocent II, pope, 2774
 —crossbow stipulations, 2930
 —opposition to Anacletus, 2056
 Innocent III, pope, 2746
 —conflict with John, 2747
 —guardian of Frederick II, 2776
 —power over Empire, 2838
 —reforms, 2284, 2746
 —supremacy claimed, 2746, 3023
 Innocent IV, pope, conflicts with Frederick II, 2825
 —intercourse with Mongols, 2847
 —struggles against Empire, 2841
 Innocent VIII, pope, accession, 3351
 Innocent X, pope, and Peace of Westphalia, 3634
 Inns, medieval, 3448, 3451
 —social centre, Germany, 3072
 Ions of Court, schools of International Law, 3675
 Inoculation, Jenner and, 5049
 Inquisition, free thought repressed, 3016, 3018
 —in England, 3005
 —Knights Templars before, 3005
 —in Mexico, 4003
 —unpopularity with orthodox, 3027
 Insanity, 19th cent. treatment, 4408, 4409
 Inscriptions, Augustan, 1872
 —Chinese, earliest known, 445
 —Egyptian, earliest known, 1153
 —Latin, earliest known, 2596, 2599
 —Moabite Stone, 1079
 —oldest alphabetic, 1078
 —Palaestine, 1599, 1880
 —Rosetta stone, 1686
 —Sindhi, alphabetic origin, 1077
 Insects, oldest remains, Silurian, 98
 Insures, submission to Rome, 1008
 Insurance, concentration in, 5000
 —ship, beginning, 1553
 Insurance Act, trade unions and, 4681
 Intaglios, Roman, 1973, 1983
 Intet, Egyptian dynasty, 427
 Intet, King, 1167, 658
 Intelligence, modern standards, 5078
 Intendant, under Louis XIV, 3841
 Interoisa, Pass of: see Furlo
 Intercolonial Railway, in Canada, 4007
 Interferometer, at Mt. Wilson, 59
 Interglacial Period, plate f.p. 220
 See also Ice Age
 Interim, The (16th cent.), consequences, 3310
 International Assn. of Working Men: see First International
 Inventions, modern, anticipated by Egyptians and Romans, 36
 Investiture Question, 2048, 2055, 2075
 —solutions of, 2055
 Inveinble, H.M.S., at Jutland, 4851
 Ion, by Euripides, 1355
 Iona, cathedral church, 2077
 —chapel of S. Oran, 2077
 —Master controversy, 2083
 —monastery and minner, 2070, 2077
 Ionia, colonisation of, 883
 —early settlement, 991, 1047
 —under Persian rule, 1004, 1090, 1091
 —revolt against Athens, 1244
 —against Persia, 1095
 —Sparta's betrayal, 1245, 1246
 —struggle for independence, 1229
 Ionian civilization, 1000-01, 1004, 1046-47, 1408, 1470
 See also Greece
 Ionian Isles, acquired by France, 4183
 Ionian Migrations, 984, 1003
 Iomans, 991, 1047, 1305
 —notorious for piracy, 3802
 —religion 991
 —scientific knowledge, 1408

Ip (the Scorpion), King of Egypt, 420
 —ceremonial mace, 494, 497
 —Menes identified with, 423
 Iphicrates, Athenian soldier, 1248
 Iphigeneia, Pampelian pte., 1938
 Ipsus, battle of, Antigonus slain, 1413
 —victory of Seleucus at, 1489
 Ipuwer, admonitions of, 654
 Iquitos, Peruvian poet, 4333
 Irak, British mandate, 4611
 —Faisal king of, 4642
 —fertility of valleys, 567
 —frontier, League of Nations and, 4929
 Iran, Alexander in, 1413
 —religion of, 638
 Iranian Architecture, 1134-39
 —characteristic columns, 1143
 —supreme achievements, 1138
 Iranian Art, 1140-42
 —in China, 2309-10
 See also Persia
 Iranians, distribution, 1127
 —Elamite struggles with, 882
 —in Media, 677
 —in Elam, 1128, 2307
 Iravie, old Greek alliance with, 326
 Ireland, annexation by Henry II, 2740
 —brogue, ancient, 2686
 —Celtic culture introduced, 1521
 —place-names, map, 302
 —Chalcolithic era in, 634
 —Christianity, early in, 2271, 2675-89
 —coal swept away, 104
 —the crannogs, 632
 —Cromwell's dealings with, 3731
 —double-spouted vessel from, 598
 —eastern limit of Gaelic, 302
 —effect of French Revolution, 4156
 —famine and plague (639), 3104
 —flint implements from, 272, 273
 —gold in during Bronze Age, 1905
 —gun running (1914), 4586
 —Hanseatic League and, 3000
 —Iron Age in, 1621
 —James II in, 3747
 —John's surrender to Parnoy, 3063
 —language question in, 330: see also Irish Language
 —learning in 5th-7th cent., 2070, 2083
 —Inducence at St. Gall, 2057
 —medieval contribution, 2688
 —long-headed early type, 214
 —medieval history, 2674-2689
 —microclimatic race in, 309
 —migration, 18th century, 4360
 —Napoleon's plans for conquest, 4184
 —neolithic flints, 273
 —links with Spain, 614
 —Normans in, 2613
 —Norman in, 2525
 —Norwegian place-names (map), 302
 —at outbreak of Great War, 4586
 —potato famine, economic results, 791
 —Saxon place-names (map), 302
 —separatist policy analysed, 310
 —under Sinn Fein, 4899, 4900
 —Strabo on climate, 2075
 —tribes, early, 1854
 —union with Great Britain, 4109, 4110
 —Vikings (Normans) in, 2521, 2525
 —Wesley in, 4200
 —Young Ireland party, 4365
 Irenaeus, bp. of Lyons, 1983, 2483
 Irene, empress, 2413, 2414
 —son Constantine VI blinded by, 2624
 Irene Ducas, monastery founded by, 2628
 Irish, in colonial America, 4009
 —early pilgrims, 2087
 —8th-century dress, 2684
 —immigration, U.S.A., 4601
 —in service of Gustavus Adolphus, 3643
 —intemingle with Norse, 2525
 —pastoral staff of 11th-century, 2686
 Irish Free State, formation, 4009
 —given Dominion status, 4044
 Irish Language, 1507, 1509
 —in early learning, 2076
 —preservation, 330, 2075
 Irish Literature, Georgian, 6019
 —illustrating Celtic customs, 1515
 —Latin, early, 2075
 —native Gaelic, 2075
 —poetry, 2081

Iron, development of industry, 4342
 —distribution, 78, 103-9
 —Egypt, introduction into, 804, 922
 —under Middle Kingdom, 554
 —rare in Old Kingdom, 554
 —for weapons, 632
 —fall in English exports (1921), 4910
 —formation, 107, 108
 —Hitite exports, 922
 —industry, economic change, 4685
 —in Great Britain, 4681
 —influence on civilization, 804
 —in Heroic Age, 846, 922
 —mechanical engineering and, 4353
 —and steel industry, U.S.A., 4487
 —old Sussex industry, 4342
 —weapons used by Dorians, 677, 1032
 Iron Age, 923-43, 1516-20, 1524
 —brooches in Greece, 987
 —dawn in Europe, 921
 —Glastonbury lake village, 632
 —in Greece, 702, 987, 1032
 —geometric pottery, 995
 —seamanship in, 1034
 —settlements, 1034
 Iron Duke, H.M.S., 4637
 Iron Gates, defile of, 2040
 —Trajan at, 1907
 Ironside, origin of name, 3728
 Iroquois, Champlain's battle, 4015
 —long house, 289
 Irrigation, in Argentina, 4328
 —in Babylonia, 581
 —in Egypt, ancient, 428, 429, 486, 488, 540
 —in India, 4457, 4472
 —in Mesopotamia, 220, 525
 —Moorish, in Spain, 3284
 —in U.S.A., 4505
 Irving, J. S., designed Golden Arrow, 5064
 Irving, Washington, 4373
 Irwell, aqueduct over, 4345
 Isaac Angelus, emperor, 2742, 2749
 Isaac Comnenus, emperor, 2514, 2814
 Isabel, Brazilian princess, 4330
 Isabel, of Bavaria, queen of France, 3127-29
 —enters Paris, 3127
 Isabella, Infanta of Spain, 4270
 Isabella, wife of King John, tom., 2743
 Isabella, queen of Castile, 3144
 —patron of Columbus, 3532
 See also Ferdinand of Aragon
 Isabella, queen of Spain, flight, 4382
 Isabeau, J. B., Congress of Vienna, 4107
 —Eugene de Beauharnais, 4099
 —Napoleon in factory, 4152
 Isiah, political importance, 829
 Isiah, Book of, 1947
 Isandhlwana, battle of, 4620
 Isaurian Dynasty, 2617
 Ishaku, Mesopotamian governor, 525
 Ishmael, in Mahomedanism, 2369
 Ishtar, Babylonian goddess, 643, 623
 —figures of, 584
 —and Gilgamesh, 576, 586-87
 —magic girdle, 300
 —temple prostitutes, 580
 Ishtar Gate, Babylon, 949, 950-2, plates 953 and 956, 957
 Isidore, early traveller, 1990
 Isidore of Miletus, architect, 2640
 Isin-Larsa Period, house at Ur, 519
 —street, Ur, 533
 Isis, 2087-89, 2180
 —discovered Ra's name, 650
 —figures, 645, 2089
 —Greek worship, 2087
 —with Osiris, 646
 —procession in honour of, 2090
 —Roman worship, 1753, 2088-89
 —service at a sanctuary, 2091
 —statue in Rome, 2088
 Iskra, Bolshevik paper, 4950
 Islam, meaning of word, 2303
 —influence of Judaism on, 812
 See also Mahomedanism
 Islands, artificial, for pile dwellings, 632
 Islands of the East, Chinese, 2104
 Islesmen: see Keftiu
 Ismail el-Saib, founded Saifid fur, 3481
 Ismail Pasha, khedive, 4657
 Ismailis, in Persia, 2789
 Isnard, speech on liberty, 4171

- Isocrates, Greek orator, 1801
 —banking arrangement, 1553
 Isolation, Maygarth and, 5015
 —and race development, 305-08
 Isomerism, Pastent and, 5651
 Isonzo, battles of, 4709
 —Austrians scaling hill, 4761
 Ispahan, pyramid of skulls, 3121
 Isparta, probably Asturpa, 735
 Israel, 435, 809-34, 1947
 —extermination, 880
 —return from Exile, 1943
 —tragedy, 440
 —world mission, 1947
 See also Jerusalem; Jews; Judaism
 Issachar, territory of tribe, 873
 Issus, Battle of, 1407, 1445, 1438
 —cavalry charge, 1436-37
 Isthmian Games, institution, 1318
 Istria, city foundation, 105-8
 Isawa, devastated, 732
 Itagaki, Japanese reformer, 4118
 Italian Architecture, Gothic culture, 2893
 — — — Milan cathedral, 3210
 — — — under Guelph and Ghibelline, 2754-57, 2760-63
 — — — medieval, 2766, 2777, 3107, 3208, 3211-13, 3215
 — — — Renaissance; see Renaissance
 See also Sicily; Venice
 Italian Art, medieval, Rome, 2777
 —pre-Renaissance, 3202-20
 See also Painting; Renaissance;
 Venetian Art; and under the
 names of painters, e.g. Giotto;
 Pinturicchio; Sodoma; Titian,
 etc.
 Italian Language, Latin origin, 2241
 Italian Literature, Renaissance, 3223
 —Sicilian influence, 2704
 Italian Type, origin, 3189
 Italique, Silius; see Silius
 Italy, Ancient, Etruscan in, 798, 1105,
 1119-75
 — — — Gauls in, 1252, 1002
 — — — Goths in, 405, 2231
 — — — Greek dominance attacked, 1410
 — — — homesteads in, 1734, 1736
 — — — languages, 1880
 — — — Ostrogoths in, 2200
 — — — prehistoric lake dwellers in, 1153
 — — — Neolithic Age, 012
 — — — Palaeolithic Age, 012
 — — — races in, 220, 308, 1590
 — — — Roman; see Rome
 — — — Syracusan possessions, 1250
 — — — tribal organizations, 1011
 See also Arnaldi; Bonacci; Bronze
 Age; Etruscan; Hylaricus;
 Latium; Villanova
 Italy, Medieval, 2603, 2751-05
 — — — Byzantine influence, 2751, 2601-02
 — — — city states, 2751, 2758, 3201-22
 — — — government, 2730, 3211-14
 — — — power, 2915
 — — — wars, 2759, 2910, 3040
 See also Florence; Milan; etc.
 — — — communes in, 2758-59, 2705, 3000
 — — — crusades and, 2800, 2811, 2807
 — — — disunion in, 2769, 3009
 — — — and France (10th cent.), 3208, 3300
 — — — Frankish rule, 2761
 — — — Frederick I's invasion, 2737
 — — — German kings in, 2504-05
 — — — Guelph and Ghibelline, 2751-05
 — — — guilds in, 2753
 — — — Holy Roman Empire and, 2751-59
 2830, 3202
 — — — Lombards in, 2400, 2602, 2751
 — — — monasteries dissolved, 2286
 — — — music in, 2008-09
 — — — Normans in, 2505, 2601-03
 — — — prosperity in, 2808
 — — — races in, 2752
 — — — religious reform in, 3248
 — — — Renaissance and, 3221-52, 3318-44
 — — — Saracens in, 2424
 — — — in 10th cent., 3208-3302
 — — — universities in, 3234
 Italy, Modern, Austrian tyranny, 4274
 — — — classicism in, 4034
 — — — colonial ambitions, 413
 — — — and England (16th cent.) 3550
 — — — (20th cent.), 4677
 Italy, Modern—cont.
 — — — Fascism in, 4896
 — — — and Great War, Austrian counter-
 offensive, 4761
 — — — — — entrance, 4766
 — — — — — gains, 4877
 — — — — — soldiers on march, 4765
 — — — Mussolini's dictatorship, 5079
 — — — Napoleon in, 4093, 4186
 — — — nationally developed, 3615
 — — — in nineteenth cent., 4204
 — — — northern, in 1803, map, 4080
 — — — population problems, 5081
 — — — post-war strikes, 5079
 — — — revolution in, 4367
 — — — romanticism in, 4312
 — — — socialism in, 4088
 — — — and Tripoli, 4580
 — — — and Tunisia, 4550
 — — — Turkish war, 4580
 — — — unification, 431, 4558
 — — — and Yugoslavia, 4882
 See also Rome and separate cities
 Ithoba'al, s. of Abiram of Byblus, 1078
 Ithome, fortress, 1231
 Ithi-Tou, Egypt, 427
 Itineraria, Roman, 2241
 Ito, Prince, 4419, 4420
 — — — mission to Europe, 4416
 Ituri, Belgian Congo, 337
 Izanuma, Maya god, 2594
 — — — priest before, 2501
 Itzcoatl, Aztec ruler, 3303
 Iuaa, chariot of, 632
 — — — funeral from tomb, 701, 710
 Ivan I, of Russia, 3888
 Ivan III (the Great), 3142, 3017
 — — — conquers Novgorod, 3061
 — — — portrait, 3919
 Ivan IV (the Terrible), 3480-82, 3021
 — — — cavalry of, 3023
 — — — correspondence with Kurbsky, 3020
 — — — and England, 3924
 — — — in Joukhusan's map, 3573
 — — — Moscow captured, 2859
 — — — Moscow cathedral built, 3925
 — — — portrait, 3482
 — — — and Russian Church, 3025
 Ivory, In Crete, 598
 — — — in Egypt, 461
 — — — standing in Herole Age, 814
 — — — as tribute to Shalmanassar, 880
 Ivory carving, Byzantine, 2200, 2257,
 2264, 2298, 2501, 2618, 2620, 2621,
 2630-40
 — — — Carolingian, 2433
 — — — from Cyprus, 1028
 — — — Egyptian, 39, 493, 494, 497
 — — — Eskimo, 2569
 — — — German, 2045
 — — — Greek, from Ephesus, 1001
 — — — Magdalenian, 248
 — — — Moorish casket, 3287
 — — — Phoenician, 1007, 1008, 1020
 — — — Spartan, 999, 1000
 Ivory King, Egyptian statuette, 491
 Ivritz, rock carving from, 718
 Ivory, Battle of, 3177
 Iwakura, Prince, 4416
 Iyoyasu, Japanese shogun, 3603, 3604
 — — — and foreign travel, 4411
 Jabir, Spanish Moor, 3270, 3272
 Jacobin, temple pillar, 819
 Jack, rinour, 2030, 2940
 Jaakal, divine (Annals), 041
 Jackman, Charles, seeks N.E. passage,
 3570
 Jackson, Andrew, at New Orleans,
 4112
 Jacob, at Bethel, 621
 — — — Hyksos name, 435
 Jacob Baradaeus, and Jacobite Church,
 2342
 Jacob, F. H., critic of Kant, 4071
 Jacobin Club, 4142
 — — — founded by Robespierre, 4176
 Jacobins, 4087, 4275
 — — — and English's murder, 4187
 — — — English dread of, 4200
 — — — German satire, 4087
 — — — Lafayette and, 4162
 — — — Napoleon and, 4170
 Jacobite Church, 2342
 Jacobites, rising of 1715, 3870
 — — — of 1745, 3879, 3881
 Jacob, William, on Prussian peasantry,
 5071
 Jacquard, J. M., loom of, 4180, 4137
 Jacques (1358), 3004, 3006
 — — — causes, 3001
 Jadete, Maya use, 2585, 2539
 Jaen, captured from Saracens, 2827
 Jaeloth, of Lithuania (1380), 3008
 Jainism, asceticism in, 1209
 — — — and Buddhism, 1209
 Jalal ud-Din Khilji, 2833
 — — — — — battle in Delhi, 3172
 Jalapour, probable origin, 1426
 Jamaica, 4030
 — — — British capture, 3003, 3811
 — — — Massachusetts aids, 4024
 — — — slave emancipation in, 4030
 — — — yellow fever, 3119
 James, Virginian river, 4006
 James I, of Aragon (1213-70), 2827
 James II, of Aragon (1245), 2831
 James I, of Great Britain, 3580
 — — — Coke opposes, 3558, 3600
 — — — death, 3592
 — — — in House of Lords, 3556
 — — — and nonconformity, 3718
 — — — Parliament and, 3559, 3603, 3671
 — — — and piracy, 3805
 — — — receiving son from Spain, 3719
 — — — and Thirty Years' War, 3592
 — — — True Law of Free Monarchy, 3600
 — — — Van Somer's portrait, 3720
 — — — and witchcraft plot, 3250
 James II, of Great Britain, 3745
 — — — fellow of Royal Society, 3820
 — — — flight to France, 3740
 — — — and piracy, 3816
 James Edward, the old pretender, 3715
 Jancsoy, Dr. L. S., premier of Czecho-
 slovakia, 4022
 — — — raid on Johannesburg, 4021
 Jannia, law school at, 1901
 Jannu Khutap, w. of Kubul, 2858
 Janina, fall (1913), 4582, 4581
 Janissaries, suppression, 4271
 Jankau, battle of, 3053
 Jansen, Cornelius, bishop, 3866
 — — — at Port Royal, 3867
 Jansen, Cornelius (painter), portrait at
 Harvov, 3829
 Janssenism, in France, 3860-80, 4200
 — — — Port Royal centre, 3860-67
 Jannaeus, Alexander, reign, 1955
 January, dedicated to Janus, 1740
 Janus, coin representing, 1737
 — — — temple, 1843-44
 — — — worship, 1735, 1737, 1748
 Japan, 2370-01, 4411-24
 — — — British influence, 4421
 — — — recognition, 4500
 — — — treaty (1804), 4423
 — — — China, raids on, 3524
 — — — treaty with (1822), 4880
 — — — democratic failure, 5080
 — — — expansion (16th cent.), 3182
 — — — and Great War, joins Allies, 4751
 — — — — — peace treaty, 4871
 — — — under Hideyoshi, 3001
 — — — isolation of, 4275
 — — — Kubul Khan and, 2833
 — — — law reform (1822), 4410
 — — — literature, 4421
 — — — medieval, 2080
 — — — modern, 4411-24
 — — — opening of, 4394
 — — — science and war in, 4780
 — — — westernisation, 4565
 — — — monasteries in, 2288
 — — — prehistoric, 2380-89
 — — — tattooing in, 207
 — — — temple paintings, 1502
 — — — U.S.A., treaty with, 4520
 Japanese, Ahims and, 2370-81
 — — — Chinese intermixture, 309
 — — — Francis Xavier on, 3602
 — — — in Peru, 4334
 — — — racial characteristics, 231, 308
 — — — origins, 2379-91
 Japanese Art, plate f.p., 4121
 Japanese Civilization, 2370-91
 — — — Chinese influence, 2390
 — — — language, 1973

Jarnac

Jarnac, battle (1568), 3464
 Jarrow, Bede at, 2300
 —monastery, 2360
 Jasmine Tower, at Agra, 3775
 Jesson, 886
 Jassy, Peace of, 4086
 Joti (caste), 2305
 Java, captured by British, 4600
 —Hindu art (Boro Budur), 2404-05
 —ploughing in, 341
 —Sir S. Raffles in, 4627
 Java Man; see *Pithecanthropus*
 Javanese, hair, 196
 Javelin throwing, in Greece, 1325
 Javorzina, League of Nations and, 4928
 Jaxartes, Alexander at, 1488
 Jeanes, Sir J. H., portrait, 5004
 Jeffries, Richard, writings, 4551
 Jefferson, Thomas, 4111-12
 —and Day of Independence, 4031
 —on Lafayette, 4160
 —portrait, 4111
 Jehanara, d. of Shah Jehan, 3780
 Jehangir, 3771-74
 —Agra mosque built, 3784
 —Akbar's monument, 3784, 3789
 —coinage, 3791, 3794
 —hunting prowess, 3783-4
 —portrait, plate f.p. 3778
 —tomb at Lahore, 3781
 Jehonah, deposed, 833
 Jehoeh, king of Israel, 826
 Jehoiachin, king of Israel, 833
 Jehoia, priest of Israel, 826
 Jehoiahim, son of Josiah, 833
 Jehoram, king of Israel, 820, 825
 Jehoahaphot, and Ahab, 819
 Jehu, 664, 825-26
 —on obelisk, 880
 —and Omri's family, 879
 Jehu ud-Din, of Khiva, 2817
 Jephthah, Joseph, in Croatia, 4368
 Jellieco, Lord, flagship, 4831
 —at Jutland, 4845-53
 —portrait, 4846
 Jelly-fish, Cambrian Period, 94
 Jena, battle of, 4101, 4101
 Jena, and Schiller, 3967
 —university of, 3964
 Jenghiz Khan, 2750, 2817, 2820
 —doubtful, map, 2819
 —as emperor, 2817, 2821
 —ordinances, 2850
 —at tent door, 2843
 Jenkins' Ear, War of, ethnic, 3883
 Jenkinson, Anthony, travels, 3672, map, 3573, 3923
 Jonne, mosque reconstruction, 3406
 Jenner, Edward, and vaccination, 3117, 5018, 5049
 Jonson, Nicolas, printer, 3184, 3189
 Jephthah, tribe of Israel, 813
 —and Chemosh, 639
 Jerash, Roman city, 1957, 2056-57
 Jeremiaf, 884
 —date of oracles, 832
 —letter to the Exiles, 1945
 —as monotheistic theologian, 829
 Jeroboam I, king of Israel, 677, 819
 Jeroboam II, son of Jehoash, 827
 Jerome, S., 2223-24, 2324
 —on Celtic language, 1998
 —teacher of the Church, 2327
 —trans. of Bible, 1755, 1898, 2324
 Jersey, dwarf flakes in, 247
 Jerusalem (530 B.C.-A.D. 70), 1942-61
 —Antiochus IV sacks, 1703
 —artillery attack, 1728
 —British capture (1917), 4775, 4776
 —Cananites' fortress, 812
 —Chaldaean sack, 833
 —church in, 2328
 —Church of the Holy Sepulchre, 2652, 2700, 2800, 2861
 —Crusaders capture, 2653
 —after Exile, 1944, 1945-6
 —fall of (586 B.C.), 1943
 —(A.D. 70), 1859, 1957, 1958, 2457
 —Fatimids in, 2645
 —Greek influence, 1494
 —Herod and, 2059
 —Jews return to, 834
 —Mongols take, 2820
 —Pompey attacks, 1778

Jerusalem—cont.

—Saladin captures, 2742
 —Sarcens capture, 2317
 —Seljuks capture, 2615
 —Sennacherib attacks, 830
 —Shushank (Shishak) raids, 820, 882
 —Temple of Herod, 1946, 1955, 1956, 2059
 —Solomon, 818-9, 2957
 —Zerubbabel, 1948, 1956
 —vessels, 1928, 1958
 Jerusalem, Latin Kingdom of, 2653, 2744, 2799
 See also Latin Kingdom
 Jester, balancing on pole, 3450
 Jesuits, 3316, 3681-3692
 —at Akbar's court, 3768
 —in China, 3525
 —in East Africa, 3402
 —expelled from France (1762), 3866
 —Japan, 3483
 —Prague, 3926
 —in India, 3771
 —and Kang Hsi, 4652
 —missionary work, 3622
 —in satirical cartoon, 3631
 —Shuart engraving, 3718
 —suppression, 2286, 3915
 Jesus, Society of; see *Jesuits*
 Jesus Christ, baptism, 2332
 —belle in, 3012
 —birth, 1947
 —Byzantine representations, 2501, 2618
 —at Cnna, Carolagian carving, 2438
 —Chinese portrait, 3508
 —divinity, controversies about, 2329, 2334-35
 —figure in Andes, 4323
 —chalice, 2177
 —Gothic sculptures, 2863, 2886
 —Greek spoken by, 1494
 —incarnation, 2329-30, 2334, 2336-39, 2343
 —as individualist, 652
 —the Logos, 2330-32
 —Napoleon on, 4109
 —Norman-Sicilian mosaics, 2666
 —on Roman sarcophagus, 1933
 —Tacitus on, 1852
 —waiting for peace (Thirty Years' War), 3631
 Jet, Aztec use, plate f.p. 3370
 —Celtic use, plate f.p. 1621
 Jethana, Buddhist monastery, 1217
 Jethese dorte, origin of term, 4147
 Jevons, Stanley, on British industry, 4684
 Jewel, Bishop, on papal anathema, 3557
 Jewelry, Anglo-Saxon, 2418, plate f.p. 2154
 —Babylonian, 535
 —Byzantine, 2642
 —Carthaginian, 1620, 1623
 —Celtic, 1517, plate f.p. 1521
 —Egyptian, 489, 558
 —Greek, 1623
 —Hallstatt, 939
 —Illyrian, 919
 —Mogul, 3790
 —Roman necklace, 2013
 —Trojan, 860
 —from Ur, 517, plate f.p. 529
 —Viking, 2522
 See also under Brooch, etc.
 Jewish Religion; see *Judaism*
 Jews, in Abyssinia, 3404
 —Alexander the Great and, 1494
 —Christian church, 2181
 —dispersion, 1901
 —in Egypt, 1945
 —exile of, 1913, 1945-46
 —Greek influence on, 1494
 —Hellenist persecution, 1954
 —under Maccabaeans, 1702, 1954-55
 —migration to Africa, 3393
 —Mikolom, 1946, 3605
 —New Year beliefs, 649
 —racial individuality, 308, 1953, 1961
 —relies from catacombs, 1960
 —Roman attacks, 1859, 1955
 —and Romans, 1870, 2180
 —in Rome, 2774
 See also Israel; Judaism; Semites

Johnson, Samuel

Jezebel, 825
 Jhansi, Indian state, 4464
 Jimmu, Japanese emperor, 2390
 Jingo, term, 397
 Jingo, Japanese empress, 2300
 Jivaro, using blowpipe, 281
 Jizya; see *Poll-tax*
 Jean of Arc, 377, 3255-58
 —before the Dauphin, 3133
 —falconry, 3133
 —sketch from life, 3255
 —story, 3130
 —as warrior, 373
 Joanna, Queen of Naples, 3009, 3133
 Job, Babylonian, 585
 Job, Book of, 811, 1952
 —ethical problems, 834
 Jobst, of Moravia, 3008, 3135
 Jodha Bai, wife of Akbar, 3760
 Jogues, Isaac, Jesuit missionary, 3691
 Johannesburg, gold discovered, 4620
 —Jameson's raid, 4621
 Johannes Scotus Erigena, 2688
 John, Gospel of S., 1494, 2380
 John, king of Bohemia, 3094-05
 —coronation, 3096
 John V, Byzantine emperor, 2094
 John VI, Byzantine emperor, 3123
 John, king of England, 2747-49
 —French wars, 2-26
 —and Magna Carta, 2749
 —tomb at Worcester, 2747
 —unfalsified, 2743
 John II, king of France, in England, 3091-02, 3091-03
 John X, pope, 2771
 John XI, pope, 2771
 John XII, pope, 2501, 2771
 John XIII, pope, 3003, 3092, 3072
 John XIII, pope, 8155-56
 John II, king of Portugal, 3133
 —colonisation policy, 3529-31
 —recalled from Brazil (1820), 4261
 John III, king of Sweden, 3450
 John, Archduke, regent of Prussia, 4369
 John, Augustus, modernism, 5025
 —The Orange Jacket, 6026
 —The Smiling Woman, plate f.p. 5026
 John Casimir, king of Poland, 3001, 3731
 John II Comnenos, 2650, 2660
 John Damascene, S., 1506
 John, Don, of Austria, 3047, 3472, 3474
 —at Lepanto, 3475
 John III, Ducas, 2822
 John George, elector of Saxony, 3652
 —defeat at Wittstock, 3653
 —Swedish alliance, 3647
 John Hyrcanus I, 1055
 John of Bilenne, 2822-23
 John of Constantinople, 2425
 John of Coza, on Nestorianism, 3509
 John of Damascus, Arabian doctor, 1506, 2625
 John of Ephesus (584), 2176
 John of Gaunt, d. of Lancaster, birth-place, 3082
 —Londoner's dislike of, 3068
 John of Montecorvino, mission to China, 3508
 John Palaeologus, emperor, 3154
 John Plano de Carpi, friar, and Mongols, 2847-48, 2850, 2852
 John the Baptist, Christ baptised by, 2332
 —by da Vinci, 3326, 3328
 John the Cappadocian, paganism, 2303
 John the Fearless, duke of Burgundy, 3128-29, 3130, 3153
 John the Usurper, claims imperial throne, (c. 423), 2204
 John Zanolay, k. of Hungary, and Turk, 3314
 John Zimices; see *Zimices*
 Johnson, Andrew, President of U.S.A., 4450, 1499
 —impeachment, 4461
 Johnson, Samuel, Boswell's life, 8
 —and Mrs. Carter, 4217
 —on Charing X., 4210
 —on drunkenness, 4235
 —on John Wesley, 4201
 —Lives of the Poets, 4309
 —at Reynolds' party, 4210

Johnson, Samuel—*cont.*

- *Keynolds' portrait, 4039*
- and Mrs. Thrale, 4217
- Jolat-stock Company, 4900-97**
- Jonah, Book of, 1917**
- Jones, Ernest, Chartist leader, 4437**
- Jones, Ernest, doctor, psycho-analysis, 5020**
- Jones, F. Wood, on Man's Origin, 163-61**
- Josac, Inigo, banqueting hall, 4934**
- *classicism, 4044*
- *masque costumes, 3715*
- Jones, John, on Puritans, 3707**
- Jones, Sir Robert, on orthopaedics and the war, 4790**
- Jonson, Ben, 2217, 3717, 4014**
- Joppa, captured by Thuti, 708**
- Jordanes, monk, 2211, 2213**
- Jordans, Quaker meeting house, 4007**
- Josealya of Courtyard, Count of Idessan, 2651**
- Joseph, Bible story, 812**
- Joseph, husband of the Virgin, 2864**
- Joseph I, emperor, 3740, 3883**
- Joseph II, emperor, 3010, 3911, 4095**
- *Catherine the Great and, 3030*
- and Frederick the Great, 3912
- at the Gesù, Rome, 3680
- *monasteries suppressed, 2286*
- *Turkey and, 3013*
- Joseph, Father, and Wallisstein, 3642**
- Josephine, empress, 4101, 4187, 4103**
- and Barras, 4140
- *coronation, plate f.p., 4091*
- *Gilray caricature, 4158*
- *marriage with Napoleon, 4180*
- *Prud'homme's portrait, 4181*
- *visiting factory, 4152*
- Josephus, Jewish historian, 1345, 1361**
- 4057
- *Aplon opposed, 2170*
- *use of Greek, 1491*
- Joshun, high priest, 1048-49**
- and conquest of Palestine, 812
- Josiah, king, 832-31**
- Joubert, General, floor leader, 4023**
- Jouvenaux, Guy, Abbot, 2285**
- Joule, J. P., scientist, 4703**
- Journaleto, in modern literature, 5018**
- Journeymen, 2023-24**
- *in craft guilds, 2010*
- Jonsting, plate f.p., 2927**
- *armour, 2934, 2937*
- *knights before heralds, 2980*
- Jouvenel, Le, medieval novel, 2085**
- Jovian, emperor, 2100**
- Jovinus, emperor, 2202**
- Joyce, James, modern writer, 5020**
- Juarez, Benito, president of Mexico, 4337, 4387**
- Juba I, of Numidia, 1738-87**
- Juba II, of Mauritania, 1786**
- Jubal, in Caedmon MS., 2470**
- Judaon, pagan altar, 1701**
- *Roman conquest, 1058*
- *province 1778, 1792*
- Judah, Kingdom of, 1943-44, map, 813**
- *ravaged by Sennacherib, 830*
- *under Rehoboam, 677*
- *as Roman province, 1056*
- Judaism, 1043-61**
- *Antiochus IV and, 1701*
- *compared with Atonism, 752*
- *of the Dispersion, 2173*
- *Early Church and, 2004*
- *Egyptian influence, 1907*
- *Greek philosophy and, 2171*
- *religious dominance, 812*
- *Romans and, 1908, 2093, 2180*
- Judenich, General, advance on Petrograd, 4903**
- Judge, Indian native, 4452**
- *medieval English, 2996*
- *in Roman law, 2164*
- Judge of Hall, statuette, plate f.p., 3410**
- Judgement, Egyptian ideas, 548, 651**
- *medieval idea, 3010, 3463*
- *Koran on, 2370*
- Judges, Book of, 701, 806, 812**
- *on local deities, 630*
- Judicial Combat, 2614, 2667**
- *See also Duel*
- Juggling, Middle Kingdom, 565**
- Jago-Slavia: see Yugo-Slavia**
- Jagurtha, k. of Numidia, 1780, 1771**

- Jajitsn, Greek resemblance, 1322**
- Julia, d. of Agrippa, 1817**
- Julia, d. of Augustus Caesar, 1811, 1816**
- 1817, 1873
- Julia, d. of Julius Caesar, marriage to Pompey, 1827**
- Julia, wife of Agrippa, 1840-41**
- Julia, w. of Hadrian, 1909**
- Julia Domna, w. of Severus, 1980, 2110**
- Julia Mosa, sister of Julia Domna, 2110-11**
- Julia Mamaea, mother of Alexander Severus, 2110-11, 2112**
- Julianus Anicia, Diocorides MS., 2077, 2078**
- Julian Law, 1772**
- Julian the Apostate, 1910, 2001, 2101-06**
- *and Christians, 2224, 2202*
- *coin, 29*
- *and statues and coin, 2195*
- *and Trojan traditions, 853*
- Julianus, gladiatorial show, 1987**
- Julianus Didius, 1077-79**
- Julii, Trojan descent, 806**
- Julius II, pope, 3200, 3300**
- *art patron, 3227-28*
- *portrait by Raphael, 3228*
- *statue by Michelangelo, 3351*
- *family, 3231*
- *and Venice, 3040*
- Julius Caesar: see Caesar**
- Julius Nepos, 2206, 2258**
- Julius Pollux, literary work, 2171**
- July Revolution, in France, 4268**
- *Louis Philippe and, 4269*
- Junadohapur, early academy, 2531**
- Junasni, capital of Alaska, 4520**
- Junas, guides, patrol of Rome, 1745, 1746, 1710**
- *temple at Lambaeris, 1982*
- Junot, Andocho, in Spain, 4102-03**
- 1747-49
- *compared with Barth, 73*
- *as English god, 1523*
- *in Greek mythology, 50*
- *Latin worship of, 1735*
- *patron of Rome, 1745, 1746*
- *priestesses, 1748*
- *priesthood, 1042*
- *statue, 1747*
- *temple at Lambaeris, 1982*
- *title of Othman Maximus, 1745*
- *See also Zeus*
- Jurassic Period, 109-0, 131**
- *plate f.p., 90*
- Jurisperitence, Roman, 2101-02**
- Jury, in Athens, 1261**
- *bloets, 1121*
- Jus Gentium, 2160**
- Justice, Permanent Court of International, 4923**
- Justin I, emperor, 2203, 2310**
- Justin II, emperor, 2272**
- *suppression of monophysites, 2341*
- Justina, empress, 2109**
- *Arianism, 2322-23*
- Justinian I, emperor, 2201, 2203-07, 2272, 2305**
- *Athena University closed, 2031*
- *buildings, 2202-04, 2200*
- *Constantinople under, 2287-2305*
- *Christianity and, 2303, 2310, 2482*
- *code of, 2157, 2161, 2485*
- *dedicatory offering, plate f.p., 2302*
- *detronement attempted, 2208*
- *Italy conquered, 2234*
- *legislation, 2157, 2204, 2030*
- *Nika Insurrection, 2265, 2206*
- *introduced silk industry, 1089, 2303*
- *Slavs resisted, 2470*
- *comb, 2200*
- Justinian II, emperor, 2353, 2354**
- *inhibition, 2693*
- Justin Martyr, on the Stoics, 1008**
- Jutes, in England, 2208, 2448**
- Jutland, Battle of, 4761, 4845-53**
- *Lion at, 4831*
- *map, 4845*
- Juvonal, 1895**
- *on crouches, 2021, 2024*
- *on religion, 1901*
- *on Roman life, 2003, 2005, 2007*
- *on slaves, 2004-05*
- Juxon, Bishop, at execution of Charles I, 3581**

K

- Kaaba, at Mecca, 2362, 2369**
- Ka-aper, Egyptian statue, 471**
- Kabir, Muslim teacher, 3180**
- Kabirpanthis, Hindu sect, 3180**
- Kabul, harbour at, 4460**
- *expedition to (1841), 4458*
- *general view, 4463*
- *Mogul gardens at, 3784*
- *murder of British resident, 1469*
- *Russians taken at, 4168*
- Kabis Nama, Sefiok prose work, 2701**
- Kadashman-Bursash, k. of Babylon, 673**
- Kadash, capture by Phothmes III, 662, 680**
- *Subbilmiluna at, 732*
- *Syrian confederacy at, 660, 680*
- Kadesh, Battle of, 660-70, 671, 729, 730**
- *Amorite prisoners from, 797*
- *chariot charge, 673*
- Kadosia, Malmedy victory, 2347**
- Kadi, goddess of Kisit, 630**
- Kadi Kool, Constantinople, 2280**
- Kadphios I, Asiatie ruler, 1981, 2103**
- Kadphios II, Asiatie ruler, 1981**
- Kafirs, 3306, 3645**
- *IV Urban and, 4018*
- Kaid, cousin of Kublai Khan, 2850**
- Kai-feng Fu, formerly Pien-hang, 3515**
- Kalasa, M., Vynut's teaching on, 2301**
- Kalasa, temple, 2392, 2403**
- Kalim, khali of Bagdad, 2779, 2782**
- Kairwan, mosque, 3288, 3271**
- Kajar dynasty, overthrow (1925), 2318**
- Kakovates, castle and tomb, 785**
- *signal-ring from, 774*
- Kalahari, bushman tribe, 208**
- Kalangan, Banta people, 3401-03**
- Kalasaasany, ruler, Kolyva, 2596**
- Kalidasa, Indian poet, 2200**
- Kalini, Russian revolutionary, 4051**
- Kalish, treaty of, 4100**
- Kama, Union of, 3000, 3001, 3134**
- Kama, Russian colonisation, 4024**
- Kamakura, 4113**
- Kamars, pottery from cave, 601, 604**
- Kamoh, Loon, 4051, 4064**
- Kamou, to Kani, Japanese 4305**
- Kamran, son of Babur, 3706**
- Kanchipuram (Kanchipuram), temple gateway, 3170**
- Kandahar, 1408, 1441, 1488**
- *British march on, 4490*
- *Nadir Shah seized, 3795*
- *Persians seized, 3790*
- *Shah Abbas seized, 3774, 3770*
- K'ang Hsi, Manchuk emperor, 4650**
- *and Jesuits, 4652*
- *literary achievements, 4650-51*
- *palace, Peking, plate, 4657*
- *porcelain, plate, 4660*
- Kanishka, Kushan emperor, 1400, 1501**
- *portrayal of Buddha, 2307, 2309*
- *reliquary, 1499*
- *sovereignty, 1081*
- Kannomeyeria, early reptile, 119**
- Kano, harbour at, 4630**
- Kant, Immanuel, 3948, 4070**
- *Alpine type, 233*
- Kantomir, Russian satirist, 3936**
- Knn Yag, Roman onussey, 1001, 2107**
- Kao-ti or Kao-Tan founder of Han dynasty, 1587, 2104, 2274, 2545**
- Kao Tung, emperor, 2380**
- Kapp, Wolfgang, Berlin painter, 4010**
- Karabul, rock carving from, 717, 718**
- Karakhanids, branch of Turks, 2770-81**
- Kara-Khitalis, defeat Seljuks, 2792**
- Karakoram, palace, 2817**
- Kara Mustafa, besieges Vienna, 410, 3752-53**
- Karkar, battle, 820, 878**
- *captured by Shiluwaeser, 879*
- Karl August, of Saxo-Weimar, 3957**
- *portrait, 3958*
- Karle, Guillaume and Jacquelin, 3091-96**
- Karlson, Anton, on Bolshevik Russia, 5076**
- *on the 'Uso Chuan, 2548*
- Karl, cave temple, 1218-19**
- Karlings: see Carolingian**
- Karlinski, German ship, 4840**
- Karluku, Turkish border, 2770**
- *invasion of Transoxiana, 2702*

- Karma, Law of, Hindu doctrine, 2365
 Karma-marga, 2369
 Karmim, city of Gilcad, 827
 Karnak, Temple of, drawings of plants, 683
 —Hypostyle Hall, 705, 745
 —reconstruction, 692
 —inscription, 820
 —obelisks, 702
 —sculpt, 595
 Ka Sen, king, ivory carving, 483, 559
 Kashgar, 445, 2360
 Kashmir, 1981, 2360
 Kashta, king of Napata, 882
 Kasim, son of Hattaj, victories, 2356
 Kasr-i-Shirin, palace ruins, 2316
 Kassites, at Babylon, 434, 667, 728
 —end, 673
 —footgear, 571
 Katharine of Aragon, watching founts, plate *f.p.* 2927
 Kaufmann, Angelica, port. of Winkelmann, 3963
 Kautz, W. A. D. von, 3895 3597-98
 Kavirondo, natives, 235
 Kaward, king of Kirman, 2788
 Kay, John, shuttle invention, 4347
 Kayak, Eskimo boat, 291
 Kayans, divination, 349, 350
 —house, 289
 Kay-Kaus, prince of Tabaristan, 2791
 Kazan, khans, 3017
 —town, captured by Russia, 2860, 3019
 Keats, John, 4314, 4315
 —on Bollean, 4047
 —Dyndyon, 4047
 Keeling Island, Endeavour at, 4840
 Keir, Birin, ruined synagogue, 1959
 Kettia, Minoua Crotons, 792, 703
 Kelllogg Pact, signature, 4904, 4932
 Kells, monastery, 2676
 —St. Columba's library, 2677
 Kells, Book of, 2684, 2689
 Kelmscott Press, 3198
 Kelso Abbey, charter, 2658
 Kelvin, 1st Baron, and Atlantic cable, 4998, 4999
 —and Clerk-Maxwell's theory, 4703
 —on origin of life, 86
 Kemal, Mustapha, 4885, 4898
 —rebuilt Angora, 4884, 4886
 —westernises Turkey, 4885, 4898
 Kemezi, Transylvanian leader, 3002
 Kemmel, Mount, reconstruction, 4906
 Kenites, status with Israel, 815
 Kenizzites, Jewish association, 815
 Kennabee (river), Port Malinix, 4014
 Kennedy, Margaret, The Constant Nymph, 5021
 Kenneth, king of Scots, 2424
 Kennington, old turnpike, 4344
 Kent, Saxon jewelry found in, 2448; plate *f.p.* 2454
 —peasants' revolt, 2099, 3100
 Kent, Kingdom of, 2463, 2401
 —Jutes in, 2271
 Kent, William, 4301
 —influence in Germany, 3952
 Kopenit, Egyptian boat, 501
 Kepler, John, 3341, 3825
 Ker, W. P., on Latin literature, 2679
 Kernik des Chevaliers, castle, Syria, 2796
 Keresky, A. F., 4773, 4948 4949, 4953
 Kergavn, dolmen, 623
 Kerescan, lines of, Carnac, 622 624
 Kerma, Chusite centre, 679
 —Egyptian outpost at, 561
 Kermario, lines of, Carnac, 624
 Kérvalle, Louise de; see Quérouaille
 Kerich, in time of Catherine II, 3940
 —tomb-painting, 2194
 Kestner, Bruno, discoverer, 1109
 Ket, Robert, rising, 3488
 Ketill, Fleetne, story of, 2525
 Keyes, Sir Roger, at Zeelbrugge, 4779
 Keystone, architectural, 2806, 2881, 2884
 Khabiru, Aramean bandits, 666, 800, 814
 Khadijah, wife of Mahomet, 2367
 Khafra, king of Egypt, 425, 480, 502
 —pyramid at Gizeh, 425, 426, 506
 —gphinx, 509
 Khair ed Din, Barbary corsair, 3805
 Khajuraho, Vishnu temple, 2402
 Khakani, poet, 2793
 Khalaf, prince of Seistan, 2788
 Khalid, the Sword of Allah, 2345
 Khalifa, The, at Omdurman, 4571, 4637
 Khalifate, 2349-52
 —abolition (1924), 4885
 —at Bagdad, 2412
 —at Damascus, 2356
 Khalsa, brotherhood army, 4458
 Khamanu, destruction of, 890
 Khan, The Great; see Kublai Khan
 Kharejites, Mhomedan sect, 2350
 Kharkov, in Great War, 4961-62
 Khartum, fall of (1885), 4582, 4637
 Khasekhemui, king of Egypt, 420, 424
 —tomb floor of, 503
 Khntushash; see Hattusas
 Khensu (Chons), temple rebuilt, 705
 Kheta; see Hittites
 Kheti, vizier of Memphis, 652
 Khlau, Hykaos king, 435, 737
 Kluha, Mitannian deity, 809
 Khilji or Khalji, dynasty, 3164, 3167
 Khringan Mts., migration routes, 441
 Khitans, empire of, 400, 2561
 Khiva (Khoresmia), 2779
 —empire of, 400
 Khmers, Enstein rulers, 2107
 Khnum, Egyptian god, 611
 Khnumhetep, gifts for, 547
 —paintings from tomb, 548, plates *f.p.p.* 552-3
 Khnumut, Princess, crown, 558
 Khofend, Alexander's city, 1488
 Khonds, British and, 4456
 Khons, the moon god, statue, 1198
 Khonsan, 2779
 —Seljuk government, 2782
 —Turkish claims, 2781
 Khoresman, Turkish invasion, 2780
 Khorsabad, palace of Sargon II, 218
 Khurim, highland, 1173
 Khutu, king of Egypt, 40, 425
 —pyramid, Gizeh, 425, 426, 506, 509
 Khumri; see Omri
 Khursanassa (Chersoneus), 737
 Khurgu Parviz; see Chores II
 Khwarazmshah, title, 2780
 Khwarazmshahs, dynasty, 2792
 Khyber Pass, 461
 —from the air, 4466
 Kiangnan, cremation in, 3507
 Kiang-si, China, 445
 —Ming Mausoleum, 3511
 Kiao Chan, 4560, 4601, 4662
 Kidd, Benjamin, sociologist, 5050, 5060
 Kiel, mutiny at, 4784
 Kili Canal, medieval predecessor, 3051
 Kiernan, S., founds Clonmacnoise, 2684
 Kiev, capital of Muscovy, 3917, 3931, 3932
 —and Russian renaissance, 3931
 —Viking Kingdom at, 2524
 Killan, S., in Franconia, 2681
 Kili Arslan, Sultan of Roum, 2652, 2794
 Killiecrankie, Battle of, 3747
 Killingworth Colliery, Stephenson's engine in, 4356
 Kilt, of Egyptians, 550, 551, 552
 —of Sumerian infantry, 527
 Kimberley, diamond diggings, 4619
 King, 354-6
 —Babylonian, 576, 647-48
 —among Bantus, 235
 —deification, 356, 498, 524
 —Egyptian cult, 648
 —soul's journey, 649, 650
 —English ideas, 2708
 —Greek ideas, 1109
 —Hittite, statue, 722
 —Hittite, 718, 723
 —Homeric and, 838
 —in Mesopotamia, 524-25
 —Roman idea, 1696, 1698, 1706, 3687
 —See also Sovereignty
 King of the Four Quarters of the World, title, 431, 434
 King Philip's War, 4022
 King-priest, 221, 495, 644
 —See also King
 Kings, Books of the, and Solomon's temple, 818
 King's African Rifles, a private, 4641
 King's College Hospital, ward, 6066
 Kingale, Charles, Alton Locke, 4405
 —portrait, 4548
 King's (Liverpool) Regt., in trenches, 4802
 King's Peace (387), 1248, 1308
 Kingston, Kent, jewelry, plate *f.p.* 2454
 Kingin, in Assyrian story, 979-80
 Kinsai; see Hangchow
 Kin Takars, conquest of, 2817
 Kipling, Rudyard, 14
 —on progress, 6083
 Kirgessi, burial customs, 3573
 Kirk, Sir John, 4633, 4631
 Kirkham, Betty, Wesley and, 4204
 Kish, Mesopotamia, 430-31, 514-16
 —pictographs, 516, 518, 1008
 —pottery from, 513
 —stylus from, 518
 —Sumerian writing from, 1063
 Kishar, Assyrian god, 979
 Kitchener of Khartoum, Earl, and
 —Fashoda incident, 4571
 —Khalifa crushed, 4637
 —sirdar, 4570
 Kitchen-midden deposits, 245-7, 335
 —folk of, 2215
 Kib'e Goby House, Kentish dolmen, 620
 Kiprili, Mohammed, Turkish wazir, 3602, 3751
 Kiprili, Mustafa, 3753-51
 Kizi Irmak, river, formerly Halys, 717
 Kizuwadna, Asia Minor, 723, 736
 Kleber, J. B., in Egypt, 4095
 Klein Schmellendorf, compact of, 3892
 Klemantans (Borneo), superstitions, 351
 Klinger, F. M., von, and Storm and
 —Stress, 3959
 Klepsteck, F. G., literary status, 3955
 Klester Zevon, capitulation of, 3900
 Kliek, A. von, attacks British, 4746
 —portrait, 4748
 Kneller, Sir Godfrey, Addison by, 4938
 —Dyden, 4683
 —George I, 3879
 —Munmouth, 3746
 —Queen Caroline, 4222
 Knife, (Iriscan, 32
 —from Gebel el-Arak, 39, 403, 497
 —ripple-flaked, Egypt, 492, 567
 —stone, Australian, 275
 Knight, 2701-98
 —horses of, 2607
 —ladies equipping, 3425
 —mounted, 2831
 —Norman, 2607, 2608, 2719-21
 —vigil, 2974
 —See also Chivalry
 Knight, Mary, 4901
 Knighthood, Orders of, 2976-79, 3425
 —See also Garter, Order of; Golden
 —Fleece; Teutonic Knights, etc.
 Knight Service, 2719-21
 Knight's Fee, 2719, 2721
 Knights Hospitallers, charitable order
 —2796-98, 2810, 2977
 —costume, 2799, 2810
 —papal exemptions, 3065
 —in Rhodes, 2814
 Knights of Lahan, 4516
 Knights of St. John; see Knights
 Hospitallers
 Knights of the Sword, 2977
 Knights Templars, 2802, 2810, 2977
 —banking operations, 2897
 —Clement V and, 3065
 —costume, 2799, 2802, 2810
 —in Crusades, 2796, 2798
 —fall of, 2995, 3065
 —Grand Master burned, 3068
 —in Latin kingdom, 2796, 2810
 —military organization, 2977
 —papal exemptions, 3065
 —seal, 2799
 —Temple Church, 2802, 2812
 Kniphausen, General, at Lutzen, 3651
 Knout, punishment, 3942
 Knox, John, and education, 3335, 3337
 —portrait, 3339
 —sent to Scotland, 3681
 Knox, Robert, on Saxon and Nerdle
 mentality, 316
 Knuckle-bones, in Babylonia, 540, 551
 —Greek girls playing, 1286
 Knyvett, Thomas, letter from Cromwell,
 3726

Kobad

Kobad (*Kavad*), king of Persia, 2263-61
Koch, Robert, bacteriologist, 5051, 5052
Koch, Rudolph, type designer, 3100
Koh-i-nor, looted by Ahmad Shah, 3700
 --model, 3775
Kohl, offerings of, 547
Kolcei, shogun, 4395
Kolchak, Admiral, 4963-64
Kolin, Battle of, 3900
Komai, Gennesaké, on Japanese democracy, 5080
Komet, mikado, 4394
Komura, Count, and Treaty of Portsmouth, 1570
Konia (Iconium), road centre, 719
 --Seljuk art and buildings, 2794, 2795
König, Friedrich, printer, 3200
Königsgrätz, Battle of, 4381
Königsberg, Frederick I crowned, 3751
 --in Great War, 4740
Koizumaro, Count, besieges Pragor, 3055
Kopan, Hunghuan leader, 3151
Koppernick, N. : see Copernicus
Koran, 2651-93
 --angels in, 2372
 --appearance, first, 2368
 --commercial language in, 2366
 --doctrines, 2376-78
 --early copies, 2365
 --Judeo-Christian associations, 2374
 Mahomet and, 2364-68
 representations of animate objects forbidden, 3287
 --script, 2367
 translation, 3201
Koranas, Achean tribe, 208, 209
Koro, Greek goddess, 3382
 --emanation from Ge, 1371, 1384
 identity with Liberia, 1762
 --medallion portrait, 1380, 1383
 sanctuary, 1383
Korea, China-Japan war and, 4421, 4600
 --China obtains, 2160
 --Japan annexes, 4421
 --Mingol occupation, 441
 --and treaty of Portsmouth, 4608
Koranas, allyship with Japanese, 2384
Korotkev, General, alleged plots, 4052
Korsakov, defeated by Maschena, 4095
Kossol, on Red Sea, 402
Kossovo, Battle of (1448), 3124
Kosuth, Louis, 366, 4307
Kotabha, conquered Transoxiana, 2365-67
Kotoku, emperor of Japan, 2391
Kotoshikhin, on Russia, 3032
Koyunlik, palace, 889
Kovno, Germans take, 4758
Kranz, Martin, printer, 3100
Krasin, L., Russian politician, 4970
Krasnoyarsk, Russian colony, 3029
Kremlin, The, 3922-3
Krifanlohi, on Russia, 3032
Kulu, climate of, 3017
 --Tatars beaten, 3027
Krishna, cult of, 2308, 2100
 --identified with Dionysus, 1499
 --incarnation of Vishnu, 2308
 --pillar at Benmugar, 1502, 1505
Krishna I, builds Kathua, 2392
Kronstadt, British attack (1854), 4373
 --attack (1919), 4860
 --French fleet at (1891), 4502
 --massacre (1921), 4900
Kropotkin, Prince, Russian anarchist, 4941
Kruger, Paul, Boer leader, 4621
Krugerdersp, monument at, 4620
Krylenko, Lieut., and Duhokhin, 4954
Kshaharata, in India, 1981
Kshatriya, Indian caste, 2374-99
 --arms merge into, 2274, 2300
 --as warriors, 237, 453
Kuang Hsu, Chinese emperor, 4566
Kuang Wu, Chinese emperor, 2101
Kuanyin, Chinese deity, 2664, plate f.p. 3519
Kuan Yu, porcelain figure, 3518
Kublai Khan, 2833, 2853-60
 --China ruled by, 2819, 2900
 --court, 2847, 2857
 --Peking laid out, 2856, 2856, 4059
 --portrait, contemporary, 2858
 --succession, 2817

Kuchuk Kalnarij, Treaty of, 3912, 3930, 3940
Kufow, temple, 1221
 --tomb of Confucius, 1220
Kuhlmann, R. von, at Brest Litovsk, 4956
Ku K'ai-shih, Chinese arml., 2550, photo f.p. 2553
Ku Khux Klan, activities, 4493
Kukulkan, Maya god, 2580, 2587, 2591
 --symbols, 2587, 2591, 2592
 --worship, 2589, 2591
Kul-Oba, Scythian vase from, plate 926
Kumaragupta (413-465), 2200
Kumaragruva, and Diamond Sutra, 2551
Kum Kale, 851
Kun, Bela, 4963
Kundurd, vazir, 2781, 2780
Kunersdorf, battle of, 3001
Kung, Chinese clan, 1220
K'ung Fu-tze : see Confucius
Kungin, Babylonian god, 672
K'ung-ming Hn (Luko), photo, 4657
Kuo Hsi, Chinese publisher, 2562
Kuomintang, in China, 4903
Kurbasky, Prince, and Ivan the Terrible, 3928
Kurd, Egyptian portrait head, 35
Kurgalza, king of Babylon, 671
Kurkil, steel from, 878
Kur-ili, statue of, 539
Kurra, British capture, 4751
Kuropatkin, A. N., Russian soldier, 4658
 --at Mukden, 4657
Kushan Empire, 1691, 2100, 2209
 --coins, 1007, 1502
 --division into satrapies, 2128
 --Hellenistic influence, 1498, 1601
 --Roman influence, 1192
Kussol, Amra, bath house, 2530
Kut, air view, 3758
 --slope of Turkey, 4758, 4761
 --Turks driven from, 4772
Kuth, ad-Din Alhak, 3167
 --Indian conquest, 2760
 --Mihar in Delhi, 3166
Kutmar, stormed, 732
Kutushish, victory over Seljuks, 2787
Kutuz, sultan of Egypt, 2821
 --Mongols defeated, 2822
 --murder, 2827
Kuyuk, Mongol leader, 2452-53
Kwammu, mikado, builds Kyoto, 2391
Kwangsi, culture of province, 445
Kwangtung, China, emigration, 4005
 --immigration, 445
Kylix, wine cup, 1040, 1270
Kyoto, Japan, 2391
 --court at, 4413
 --modern view, 4421

La Barre, Jean, judicial murder, 4004
Labienus, renegade Roman, battles with Cæsar, 1728
 --in Partisan service, 1701-02
Labour, compulsory, in Petrograd, 4957, 4958
 --after Black Death, 3108, 3432
 --in Byzantium, 2029
 --Greek, 1261-63
 --League of Nations and, 4930
 --medieval hours, 3444
 --under Sennacherib, 849
 --Tudor, dislocation, 3489-90, 3492
 --system of wages, 3187
 --U.S.A. and European immigration, 390
 --organization, 4516
 --women and, 308
 See also Industrialism; Slavery; Wages; and specific countries
Labour Bureau, International, 4930
Labourers, in 18th cent. England, 4219
 --under Louis XIV, photo f.p. 3854
 --medieval, 3097, 3417
 --Norman England, 2720, 2728, 2733
 --16th cent. England, 3438
 See also Peasant; Villein
Labour Party, forms govt., 4891, 4892
 --place in politics, 394
 --socialist formula adopted, 4988
 See also Independent Labour Party; Socialism

Lamormain

Labour Representation Committee, founded, 4988
Labrador, discovery, 3295
 --in Gastaldi's map, 3693
 Vikings at, 2527
La Bruyère, Jean de, 3881, 4012
 --on contempt society, 4011
 --on misery of peasants, 3855
Labuan, ceded to Great Britain, 4028
Labyrinth, in Cretan design, 599
 --temple, Malta, 614
Lacedaemon : see Sparta
Lachish, Sennacherib receives spoil, 371
Lacena, city state, 1108
 --settlements obliterated, 785
 Vaphio tomb, 785
La Cosa, Juan de, Mappamundi, 3392
Lacquer, Chinese, 3521, 3521, 4619
Laelantius, Christian apologist, 1808, 2320
Ladas, Spartan, death after war, 1327
Ladin, language, 2472
Ladislav V (Posthumus), of Bohemia and Hungary, 3137-8, 3140
 --murder of Henry's son, 3140, 3156
Ladislav, king of Naples, attempts to gain Italy, 3131, 3136
Ladislav III, of Poland, and Hungary, 3121, 3137, 3138
 --slain at Varna, 3124, 3140, 3156
Ladislav of Poland, elected tsar of Russia (1000), 3027
Ladysmith, British troops retreating to, 1573
Laelius, C., Roman reformer, 1714
Lactius, prefect of praetorians, 1978
Lafayette, Marquis de, 4160, 4163
 --at head of National Guard, 4081
 --Mirabeau's negotiations, 4160
 --and republican principles, 4120
 --sabbre, 4162
La Follette, Robert Marlow, anti-Roosevelt, 4746
La Fontaine, Jean de, fables, 3860, 3862
 --rebels against classicalism, 4014
Lagash, boundary dispute, 639
 --Bunmatum, king of, 150, 627
 --Gudea's records, 623
 --statuettes showing costume, 541
 --Stele of Vulture, 430, 627
 --Ur-Nina, king of, 430
Lagos, annexed by Great Britain, 4020
 --British naval victory, 3901
LaGrange, Joseph L., astronomical work, 3832
La Hale, Adam de, 18th cent. poet, 2007
La Haye Sainto, Waterloo, 4198
Lahore, sacked by Akbar, 3765
 --under Akbar, 3784
Lalner, at Council of Trent, 3088
 --disciple of Ignatius Loyola, 3082
Laird, MacGregor, and African exploration, 4029
Laissez-faire, origin of theory, 4060, 4082
Lake, Gerard, 1st Viscount, defends Marthas, 4449
 --enters Delhi, 3798
Lake dwellings, British (Glastonbury), 632
 --Bronze Age, 916
 --cloth and implements from, 268
 --culture, map, 909, chart, 607
 --in Italy, 613, 1153, 1507
 --model and reconstruction, 631
 --modern parallel, 267
 --Swiss, 208, 267, 268, 617
 --Syria and Georgia, 631
 See also Terramara
Lakhamu, Assyrian god, 979
Lamaekus, Achean general, 1243-44
Lamarck, J. B. de, 4628
 --and evolution theory, 4527
La Mare, Thomas de, albot, brass, 3417
Lamartine, Alphonse de, romanticism, 4311
 --royalist, 4200
Lambaesis, Captollum, 1982
Lambert, son of Wido of Spoleto, 2495
Lambeth Conference (1911), on subordinate beliefs, 4968
La Mettrie, Julien de, philosophy, 4061
Lamia, War, 1412
Lamas, witches sabbath, 2360
Lamormain, confessor of emp. Ferdinand, 3620

Lamp

- Lamp, alabaster, Tutankhamen's, 698
- Bronze Age, 912
- Carthaginian, 1628
- Chinese lantern, 1660
- Moorish, 3288
- Roman, 1715, 2011
- Saracenic, 2340
- Stone Age, 256
- Sumerian, with duck's head, 519
- Lamp shells, Cambrian, 94
- Lamprey, predecessor, 112
- Lampsacus, Greek settlement, 1048
- Roman dish from, 1987
- Lancashire, becomes industrial centre, 4285
- Celtic place-names, 2451
- fall in exports (1921), 4910
- Roman loop road, 2035
- Lancaster, John of Gaunt, d. of: see John of Gaunt
- Lancaster, James. expedition to the Cape, 3545
- Linces, charge with, cap-a-pie, 2935
- early Greek warrior, 840
- jousting, 2934
- 16th cent. form, 2034
- Lance-heads, Neolithic, 273
- Lance-knights of Ahiun: see Lands-knights
- Lancer, 17th century, 3642
- Lanceus, ancient Greek, 1477
- Land, African tenure of, 234
- Byzantine empire question, 2622
- as capital, 4095
- female ownership, 372
- feudal system of division, 2662-04
- medieval holdings, English, 2727
- ownership in feudal Age, 2603
- Roman main investment, 1003
- status in man's control, 470
- tenure by agricultural service, 2728, 2729
- Black Death changes, 3432, 3487
- by knight service, 2710, 2721
- by serfdom, 2722
- Landa, bishop of Yucatan, on Maya hieroglyphs, 2576
- Maya MSS. destroyed, 2576
- on Maya religion, 2580
- Land-bridges, ancient, 44; pl. f.p. 220
- Landini, Francesco, composer, 2068-00
- Landowners, position, Middle Ages, 3492
- Landsknechte, 2952, 2955
- Land tax, under Moguls, 3782
- Lano, Raipin, letter to Philip Sidney, 3800
- Lane, William, and Australian socialism, 1080
- Landraun, Archp. of Canterbury, 2646
- reforms and innovations, 2612
- Lang, Andrew, World of Homer, 836
- Lang, Johann, partisan of Luther, 3352
- Langdon, Prof. discoveries at Kishi, 1085
- Langlée, royal paper mills at, 4116
- Langobards: see Lombards
- Language, 321-30
- African drum-signals as, 206, 321
- Aryan-speaking peoples, 328, 448
- of British Isles (map), 302
- comparative method, 326, 1879
- cradles of families, map, 324
- distribution, Old World, map, 325
- in Heroic Age, 851
- polysynthetic group, 2508
- Roman influence on, 2241
- universal, drawbacks of, 3021
- See also Alphabet
- Language, Saracens in, 2301
- Lankester, Sir E. Ray, on brains in animals, 182
- Langst, Secretary, agreement with Japan, 4520
- Laocon, group, 1561
- Lao-tze, birth and doctrines, 1219-20
- founder of Taoism, 2103
- Laplace, Pierre Simon, nebular hypothesis, 52-53, 69, 3832
- and physical law, 4523
- Lapland, yellow race in, 315
- Lappish, where spoken, 326
- Lapps, racial characteristics, 232
- Laros, The, family worship, 1737-38, 1860, 1877
- Laros Compitales, 1742, 1748
- shrine in Roman kitchens, 2009

- Largillière, Nicolas de, ptg. Louis XIV and family, 3857
- port. Saint-Just, 4175
- Vauban, 3750
- self-portrait, 3863
- Largo, Battle of, Norway defeated, 2830
- Larsa, Amorite city, 432
- Varad Sin, king of, 573
- Lartot, Edouard, French archaeologist, 112
- larvae, Roman spirits of the dead, 1741
- Las Casas, Count, memoirs of Napoleon, 4108
- Laseutani, decree of freedom to, 1808
- Las Navas de Tolosa, battle of, 2749
- Lassalle, Ferdinand, German socialist, 4938
- Lasso, of Egyptian hunter, 483
- entangling weapon, 283
- Lathencia, disciple of Plato, 3985
- Laswari, Scindia overthrow at, 3798
- La Tène Culture, 1512, 1516-22
- Germanic peoples, 2216
- Lateral Council (1215), confession obligatory, 3070
- fourth, decrees, 2749
- monastic reforms, 2284
- Lateral Synod (649), Two Wills doctrine, 2313
- Latimer, Hugh, use of English, 3500-01
- martyrdom at Oxford, 3493
- preaching before Edward VI, 3501
- Latin America, states of, 4310-40
- See also South America and separate states
- Latin Civilization, English renewed contact under Normans, 2014
- in Italy, 2752-53
- See also Rome
- Latin Empire: see Eastern Roman Empire
- Latin Empire of Romania (1205-1261), formation and fall, 2750, 2822
- Latin Fathers, source of theology, 2177
- Latin Kingdom, of Jerusalem, 2799, 2806-11
- disintegration and fall, 2742, 2744
- effect on Eastern Empire, 2600
- extent, 2654, map 2798, 2799, 2800
- fortresses, 2796, 2809, 2810
- founding, 2663
- Frederick II as king, 2820
- organization, 2654, 2799, 2807
- toleration towards Moslems, 2707, 2806-08, 2812
- Latin Language, 1879-83
- affinities with others, 326, 1879
- as Church language, 1882, 2242
- Dalmatian, 2177
- Duenos inscription, 1756, 1757
- early dialects, 1597
- first attempts at writing, 1755
- former international medium, 3223
- Forum inscription, 1596, 1757
- Greek influence on, 1755, 1756
- Utrille affinity, 593
- influence on other languages, 1998
- medieval drawbacks as universal tongue, 3021
- modern debt to, 2241-43
- not a dead language, 329
- pronunciation of Ciceroian, 1882
- Renaissance replaces by national tongues, 3223
- in Roman Britain, 2154
- Roman languages derived, 327, 2241, 2242
- similarities in Greek, 326
- See also Alphabet
- Latin League, 1252-53, 1603
- conflict with Rome, 1601, 1603
- dissolution of, 1410, 1603
- renewal, in favour of Rome, 1417
- treaty with Rome, 1600
- Latin Learning, Irish medieval preservation, 2676, 2679, 2681
- Latin Literature, 1883-08
- effect on Christian writers, 2224
- first works in, 1758
- Greek influence, 1580, 1758-00, 1887
- modern debt to, 2243-48
- Renaissance revived, 3321

- Latin poetry, 1888-01
- forms of, 2244
- Greek influence, 1758
- influence on modern, 2245
- rhyme, Irish influence, 2681
- Latins, colonies, 1602-03
- early struggle, 1598-1603
- in medieval Italy, 2752
- religion of, 2751-53
- See also Latium; Rome
- Latin towns, union of, religious festival, 1745
- Latin War, 1410, 1603
- Latium, early inhabitants, 1507, 1735
- tie between communities, 1593
- tribal invasions, 1600
- under Roman sway, 1253
- See also Latins; Rome
- Latvia, difficulties with Russia, 4881
- new state, 4878
- Laud, William, Puritan satire on, 3717
- Laudisti, in Italy, influence on music, 2967
- Laue, Prof. von, crystal analysis, 4705
- Laughton, Lincs., monumental brass, 2928, 2929
- Laureir, Sir Wilfrid, premier of Canada, 1035
- Laurium, Greek silver mines, 1699, 1262
- slaves in, 1124, 1262
- Lausanne, Conference of, 4885
- Treaty of (1923), 4886
- Lauzun, matrimonial affairs, 3907
- La Vega, Garcilasso de, history of Lucas, 3378
- Lavenham, medieval guildhall, 2918
- Lavoisier, A. L., chemical research, 3831
- and chemical industry, 4288
- David's portrait, 3832
- Law, administration, pro-Revolution France, 4118, 4119
- Anglo-Saxon, 2453, 2462
- in Bolshevik Russia, 4957
- of the Church: see Canon Law
- code of Hammurabi, 575
- Code Napoleon, 4099
- economic factor in, 303
- Egyptian, Empire, 710
- middle kingdom, 544
- French, post-Revolution, 4153
- revolutionary reform, 4139
- of the Hittites, 594, 726
- under Ivan the Terrible, 3925
- Jewish, Pharisees' and Sadducees' attitude, 1600
- scrolls of, gold disk, 1600
- under Louis XIV, 3841
- medieval importance, 3018
- stimulus by Gratian, 3010
- under Moguls, 3770
- monks debarred from, 2281
- national codes development, 2159
- Roman conception of, 2162
- See also Roman Law
- Law, Bonar, Prime Minister, 4890
- signs Peace Treaty, 4875
- Law, Book of the (Torah), 1952
- Law, Party of the, in Judaism, 1954
- Law, William, religious propagandist, 4055
- Lawrence, D. H., modernist, 5080
- Lawrence, Sir Henry, commander in India, 4450, 4461
- death at Lucknow, 4461
- Lawrence, Sir John, governor-general of India, 4468, 4469
- Lawrence, Sir T. George Cannock, 4265
- Elizabeth Carter, 4216
- Viscount Castlereagh, 4260
- George III, 3901
- Warren Hastings, 3904
- Prince Metternich, 4108
- Sir John Moore, 4103
- Duc de Richelieu, 4267
- William Wilberforce, 4402
- Lawyers, Edward I creation of, 2996
- under Louis XIV, 3868
- Venetian, 3264
- Laxdala Saga, Icelandic, 2455
- Lazaretto, foundation, 3117, 3118
- Lazbas, early Lesbos, 870
- Lazica, Persian possession, 2308, 2311
- Lead, deposition, 107
- Lead mining, in Britain, 1995, 2153
- Greek, at Laurium, 1262-3

- Leaf, Walter, on banking, 1552
 —on Homer, 635
 League, The (France, 16th cent.), 3463
 League of the Just, secret society, 4981
 League of Nations, 3632, 3701, 4917-37
 —and Andalus Islands, 4580
 —Assembly, first (1920), 4926
 —British Dominions and, 4614
 —council, first meeting, 4925
 —covenant, 4875, 4919, 4923
 —League Conference and, 4575
 —India admitted to, 4613
 —not international, 5060
 —and Russian relief, 4971
 League of the Public Weal (1465), 3144
 Learning, in Alexandrine age, 2105-71
 —Alfred the Great and, 2461
 —Arabic influence, 2520, 2542
 —under Charlemagne, 2427, 2437-39
 —medieval Ireland, 2075-89
 —and Renaissance, 3319-21
 —Roman influence, 2235
 —in Tudor England, 3449
 Lebanon (district), Amorites from, 797
 —conquered by Jerolcan II, 827
 —Phoenicians III in, 661
 Lebanon, Mt., Phoenicians on, 805
 —timber on, 425, 437, 521
 —trade with Egypt, 1012
 Lebano, Nicholas, *Souveraineté du Roy*, 3702
 Le Brun, C., Louis XIV at Toul, 3842
 —at Gobelin factory, 3849
 —Louis XIV at Lille, 3848
 —marriage of Louis XIV, 3739
 —paintings at Versailles, 3839
 —portrait of Louis XIV, 4835
 —tapestry design, plate *f.p.* 3821
 —Treaty of Nimwegen, 3742
 Le Gateau, battle of (1914), 4740
 Lech, river, battle in Thirty Years' War, 3640
 Lechfeld, battle of, 3140-50
 Lecky, W. E. H., portrait, 11
 Ledzinska, Maria, 3882
 Ledzinski, Stanislaus, king of Poland, 3702, 3882, 3885
 Leetocetum, Roman Leichfeld, 2148
 Leide, Stéphane, oemotic growths, 80
 Lee, Sir Henry, armour, 2939, 2041, 2923
 Lee, Robert E., 4302, 4393
 Leedes, Akbar's English Jeweller, 3700, 3700
 Leeward Islands, colonisation, 3550
 Legal procedure, Roman 2164
 —in Sumeria, 631
 Legislative Assembly, 4083, 4141
 Legislative Commission (1760) of Russia, 3041
 Legnano, battle of, 2738, 2761
 Leguiza, President of Peru, 4333
 Leibniz, G. W., 3047, 4049
 —form of calculus, 3827
 Leicester, Robert Dudley, Earl of, on navigation, 3195, 3478
 —in the Netherlands, 3470
 Leif the Lucky, discoverer of America, 2527
 Leighton, C. B., Joseph Hume, 4669
 Leiftrich, straight-haired peoples, 2384
 Leipzig, book fair, 3950
 —trade in Thirty Years' War, 3635
 —university, 3047
 Leipzig, battle of 2956, 4100, 4196
 Lejeune, Father, on the clergy, 3858
 Lelais, French party, 3081
 Lely, Sir Peter, Catherine of Braganza, 3999
 —Lady Castlemaine, 4000
 —Nell Gwynn, 4002
 —Prince Rupert, 3711
 Lemberg, Germans capture (1915), 4758
 —Russians threaten (1914), 4740
 Lemnos, Etruscan inscription, 1155
 —under Jason, 986
 —piracy in, 1155
 —wine from, 848
 Lemur, ancestors of, 193
 Lemures, spirits of the dead, 1741
 Lemuria, Roman festival, 1741
 Le Nain (brothers), plate *f.p.* 3854
 —Soldiers at an inn, 3854
 Le Nain, Louis, Haymaking, 3853
 L'Enclos, Ninon de, portrait, 367
 Leuin, Nikolai, 4773, 4940, 4940-52
 —on Bolsheviks, 5077
 —death, 4973-4
 —and death penalty, 4955
 —lying in state, 4974
 —military dictatorship, 4965
 —and Nep economics, 4970
 —portrait, 4958
 —wounded, 4958
 Leningrad, 4974
 Lenoir, bust of Fendion, 3814
 Lens, battle of, in Thirty Years' War, 3655
 Lenthall, William, letter from Cromwell, 3726
 Leo, Roman emperor (457-74), 2207
 Leo III (the Isaurian), E. Roman emperor, 2356, 2357, 2617
 —excommunication, 2486
 —conclusion, 2358, 2450, 2925
 —Sarcophagi defeated, 2356-57
 Leo IV, E. Roman emperor, 2414
 Leo V (the Armenian), E. Roman emperor, 2424
 Leo VI (the Wise), E. Roman emperor, 2498
 Leo I (the Great), pope, 2325, 2484
 —on the nature of Christ, 2338-39
 Leo II, pope, 2418, 2420, 2487
 —crown Charlemagne, 408, 2410, 2426
 Leo IV, pope, defence of Italy, 2424
 Leo VII, pope, 2771
 Leo VIII, pope, 2601
 Leo IX (Bruno), pope, 2605-06, 2773
 —expedition against Normans, 2015
 Leo X, pope, 3327, 3245
 —and La Vinci, 3231, 3241
 —enthronement, 3241
 —and Luther, 3310
 —paganism of, 3324
 —and Reformation, 3302
 —and sale of indulgences, 3359
 Leoben, negotiations at, 4093, 4182
 Leofwine, Earl, at Hastings, 2713
 Leominster, church door, 2713
 Leon, Kingdom of, 2498, 2647
 —arms of, 2691
 —union with Castile, 2827
 Leonardo da Vinci, character, 3220, 3231, 3233
 —anatomical studies, 3231, 3820, 5040
 —Bacchus & S. John, 3320, 3328
 —Cecilia Gallerani, 3207
 —facsimile of note, 3233
 —The Last Supper, 3231, 3232
 —Leo X and, 3231, 3241
 —Mona Lisa, 3231
 —scientist, 3820
 —self-portrait, 3331
 —treason on painting, 3277
 Leonidas, Spartan king, 1101
 Leonides, father of Origen, 2186
 Leonin, composer (12th cent.), 2061
 Leonnatus, governor of Achaia, 1410-12
 Leonora of Portugal, marriage, 3141
 Leontini, allies of Athens, 1240, 1243
 Leontius, E. Roman emperor, 2353-54
 Leontius (a Syrian), revolt, 2257
 Leopardi, Giacomo, and Italian romanticism, 4312
 —on Napoleonic Wars, 4204
 Leopold I, emperor, 3001, 3740, 3790
 —accepts peace terms, 3742
 —claims Spain, 3755
 Leopold II, emperor, 4084, 4085-86
 Leopold I, king of Belgians, 4271
 Leopold, duke of Austria, and Richard I, 2745
 —at Morganen, 3080-89
 Leopold, prince of Bavaria, in Warsaw (1915), 4759
 Leopold, of Hohenzollern-Sigmaringen, and Spanish crown, 4382
 Leovigild, Visigothic king, 2268
 Lepanto, battle of, 410, 3048, 3475
 —Spanish prestige, 3640
 Lepidodendron, fossil tree, 197
 Lepidus, M. Aemilius, 1775, 1790-92
 —bridge, 2038
 —portrait, 1792
 Leprosy, venereal disease, 3116
 Leprosy, Biblical, 3111
 —in Middle Ages, 3111-12, 3113, 3437
 —as tropical disease, 3118
 Leptis Magna, thermae at, 1882
 Lermontov, romanticism, 4313
 Leroux, Pierre, socialism, 4982-83
 Le Roy, Guillaume, printer, 3191
 Lesbos, independence, 736
 —revolt against Athens, 1241
 Leslie, Alexander, defeated at Dunbar, 3725
 Lespinasse, Mlle. de, salon, 383
 Lesseps, Ferdinand de, 1980, 4557
 Lessing, G. E., dramatist, 3956
 —classicism attacked, 4040
 —literary status, 3956
 —religious research, 4078
 Letter of Credit, early use, 1562
 Letters, Babylonian, 580, 580, 591
 Lettres-de-échange, 4121
 Letts, in Bolshevik army, 4966
 Lettsom, Dr., on medical reform, 5046
 Lettsom, Corinthian colony, figure, 1546
 Lettippus, atomic doctrine of, 1470
 Letzra, battle of, 1240, 1309
 Leuchten, battle of, 3900
 Levassour, on Danton, 4175
 Lever, Archimedes and the, 2067, 2068
 Lewes, flats, origin of, 28
 Lewis, G. H., definition of life, 86
 Lewis I (the Pious), Holy Roman Emperor, 2410, 2421-22
 —Spanish campaign, 2418
 Lewis II, emperor, 2422-24, 2403, 2408
 Lewis IV (the Bavarian), emp. 3003-05
 —coronation, 3005
 —Marquillo of Padua and, 3071
 —protects Swiss, 3058
 Lewis (the German), king of the Franks, 2121-22, 2403
 Lewis I (the Great), king of Hungary, 3005, 3006, 3153-54
 Lewis II, king of Hungary, 3101, 3313
 —death, 3160-61
 Lewis, king of Provence, 2405
 Lewis, of Baden, in War of Spanish Succession, 3757
 Lewis, of Nassau, 3407-68, 3471
 Lewis, the Child, reign in Germany, 2405-06, 2409
 Lewis Island, chessmen found on, 2606
 Lewis, E. Goodwyn, *Flacourty*, 4542
 Lewis, G. R., Tom Hood, 4549
 Lewis, John, epitaph, 1009
 Lewis, M. G., *The Monk*, 4304
 Lewis, P., Wyndham, 5010, 5020
 —vorticell, 5082
 Lex Annales, 1803
 Lex Analia Annalis, 1716
 Lex Calpurnia, 1708
 Lex Hortensia, 1802
 Lexicon, Assyrian, 973
 Lexington, skirmish at, 3908
 Lex Plautia-Papiria, 1772
 Leyden, medical school, 5041
 —slog of, 3471
 —university of, 3471
 Liaotung Peninsula, Japan in, 4423
 —Treaty of Portsmouth and, 4568
 Liao-Yang, battle of, 4568, 4569
 Libation Bearers, play by Aeschylus, 1350, 1352
 Liber, identity with Bacchus, 1762
 Libera, identity with Kore, 1762
 Liberalism, and democratic idea, 4155
 —in Germany, 4259, 4306
 —in Japan, 4422
 —Labour allied with, 4438
 —as appendage, 394
 Liberal-Republican Party, in American politics, 4510
 Libertine, sectarian, 3718
 Liberty, Greek ideal, 1185, 1188
 —political debt to religion, 3318
 —under Roman Republic, 1808, 1875
 Liberty, Cap of, French, plate *f.p.* 4049, 4124, 4142
 —on Roman coin, 1790
 Liberty, Equality, Fraternity, political theory, 4144, 4145
 Libnah, Semmacheib's siege of, 888
 Library, Alexandrian: see Alexandria
 —in colonial America, 4017
 —in 18th century Germany, 3058
 —formation, 16th cent., 3433
 —Greek forming of, 2166
 —Hittite, 720, 721, 725
 —medieval monastic, 2282

Library—*cont.*

- Moslem, 2533
- Roman, at Ephesus, 1893
- Libya**, ancient extent, 1173
- on border of Nile Delta, 482
- early wool export, 1914
- under Egyptian Empire, 979
- Greek failure in, 1181
- Libyans**, cavalry, Hannibal's, 1637-38
- chief, bronze head, 1637
- defeated by Merneptah, 671
- Egyptian mercenaries, 682
- in Egypt, dynasty, 1015
- invaded Egypt, 817
- Greeks' relations with, 1058
- raids on Delta, 668
- Rameses II and, 672, 673
- region, map, 423
- settlement in Egypt, 1008
- Lichfield**, Romans in, 2148
- Lichowsky**, Prince Max, leaving Foreign Office, 4558
- Licioia Eudoxia** : *see* Eudoxia
- Licinian Rogations** (Licinio-Sextian), plebeian consil law, 1253, 1652
- Licinian**, emperor 2126-27, 2188
- Licinian Stolo**, C., first plebeian consil, 1652
- Lictors**, Roman, fasces, 1706-07
- Ligo**, full (1914), 4746
- Fort Lonchi shattered, 4745
- Lieh-tzu**, Chinese philosopher, 1107
- Listo** : *see* Correggio
- Life**, definitions and distinctions, 86-87
- on earth before man, 111-40
- first appearance of, 43
- Galonic principle of, 2078
- medieval shortness of, 3415, 3431
- modern lengthness of, 5655
- nature of, 86-88, 4531
- and religion one, 3354
- Light**, and electro-magnetism, 4702
- measurement of rays, 4705
- quantum theory, 5010
- velocity of, 60
- Light Brigade**, charge of, 4374
- Lightfoot**, Bp., on S. Augustine, 2977
- Lighthouse**, Alexandria, 1534, 1536-38
- Roman, 2050, 2051
- Lighting**, method of, Ur, 533
- Roman methods, 2011
- See also* Electric Lighting ; Lamp
- Lightning Conductor**, invention, 4018
- Ligny**, attacked by Napoleon, 4108
- Ligurian Republic**, Napoleon president, 4007
- Ligurians**, Roman victories over, 1611
- subjection to Rome, 1693
- Li Hung Chang**, dowager empress's vicerey, 4650, 4661
- Liburns**, John, political theories, 3703
- Lills**, besieged by Louis XIV, 3848
- captured by Marlborough, 3799
- restored to France (1918), 4783, 4784
- Li Lung-Missu**, Chinese painter, 2502
- Lilybaeum**, foundation of, 1250
- Limerick**, capitulation of (1691), 3747
- Limostons**, for Egyptian temples, 704
- first used by Neuter, 425
- formation, 83
- oolitic, 108
- scarce in British Isles, 95, 90
- for tomb flooring, 503
- Limits**, Dootrins of, Euclid's, 2063
- Linnaeus**, taken by Black Prince, 2040
- Linnaeus**, Thomss, 3336, 3337
- Greek medical influence on, 1566
- Lincoln**, cathedral, exterior, 2891
- Lincoln**, Abraham, 4390
- killed, 4392, 4489
- and the South, 4489
- Lincolns**, manors, description, 2730
- peasantry in Norman days, 2730
- Lind**, Dr. James, and sourry, 5917
- Lindborgh**, Captain Charles A., flies Atlantic, 4737, 4738
- Lindisfarne**, 2677, 2678
- Danish sack of, 2403
- Gospels, 2403, plate f.p. 2455, 2078
- Lindus**, Rhodes, harbour, 1673
- rock sculpture, 1259
- Linan**, Irish manufactory (1783), 4346
- weaving, Middle Kingdom, 552
- in Westphalia and Sillesia, 3945
- Lingula** pyramid, Cambrian bivalve, 92
- Lin Liang**, painting of wild geese, 3529
- Linnaeus**, classification of plants, 3829
- Lion**, Assyrian carved, 571
- in Britain, 110, 136
- on Hattusas' gateway, 721
- head from Tell-el Ohrid, 520
- Hittite carving, 734
- hunting, Alexander, plate f.p. 1434
- Assyrian, 903, 9637-66
- Hittite Empire, 726
- predynastic Egypt, 481
- Tutankhamen, 699
- in ivory, ancient Egypt, 497
- Mycenaean representations, 776, 780, 841
- in Sumerian carving, 519
- Lion Gata**, of Mycenae, 775-76, 779
- Lion**, H.M.S., 4831
- at Dogger Bank, 4843
- at Jutland, 4843
- Lipan**, battle of, Taborites defeated, 3137
- Li Po**, Chinese poet, 2552, 2554
- Lisbon**, occupied by French, 4192
- Li Shih-min**, emperor, 2514, 2545
- conquests, 2274, 2300
- Taoism of, 2544
- Li Sao**, Chinese poem, 2547-48
- Liso**, Viset., inquiry into piracy, 3503
- Lisoy**, The Deserted Village, 4221
- Lister** (1858) on French beggars, 3856
- Lister**, Lord, antiseptic surgery, 5053-54
- Liszt**, Franz, romanticism, 4317
- Literature**, accurate form of history, 13
- classicism in, 4033
- Greek influence on, 1500
- history as, 8
- modern, debt to Rome, 2244
- modernism in, 5013-22
- and social reform, 4105
- use of national languages, 3223
- women in, 377
- See also* under specific countries
- Lithospheres**, crust of earth, 79, 80
- Lithuania**, disputes with Russia and Poland, 4882
- post-war state, 4877, 4878
- united kingdom of (c. 1380), 3003
- Lithuanian Language**, archaic character, 327, 320
- Lithuanians**, conversion to Christianity, 2979
- Lituus**, Hittite symbol, 738
- Li Tzu-cheng**, overthrows Mings, 4017
- Liukung**, in Wei-haiwei territory, 4566
- Ljutrand**, king of Lombards, 2354
- Iconoclastic controversy, 2359
- and the Papacy, 2415, 2196
- Ljutrand**, bp. of Cremona, envoy of Otto I, 2622, 2629, 2691
- Lin Tsung-yuan**, friendship with Jian Yu, 2556
- Liver**, as means of divination, 349, 350, 351, 1158
- Liverpool**, Bridgewater canal to, 4345
- Liverpool** and Manchester Railway, beginnings, 4357, plate f.p. 4359
- Liverpool Cathedral**, 6034
- Livery Companies**, London, ancestry of yeomanry, 2922
- journeymen's associations absorbed, 2024
- Livia**, wife of Augustus, 1846
- children of, 1873
- freeseo from villa of, 1934, 1935
- Living Church**, in Russia, 4972
- Livingstone**, David, 4610, 4631, 4632
- and Arab slave trade, 4629
- discovers L. Nyasa, 4631
- Livonia**, and Hanseatic League, 3050
- Peter the Great's designs on, 3792
- Liwy**, history of Rome, 1593-94, 1893
- literary greatness, 1888
- on Roman army, 1722, 1725
- on the Samnium contest, 1612
- on Scipio, 1702
- story of Ambigatus, 1523
- Lixus**, N. Africa, founding of, 1177
- Li Yuen** : *see* Kuo Tsu
- Llama**, evolution, 2592
- Llananno**, Radnorshire, church, 3495
- Llewelyn** of Wales (c. Edward I), in House of Lords, 2832
- Loquus Ypanqu**, Inca ruler, 3380
- Llywell Stone**, Ogham characters, 1509
- Lohengula**, Matabele king, 3103, 4633
- Local Government**, in French Revolution, 4133
- in Middle Ages, 2665
- Locarno**, conference of (1925), 4593, 4931, 4932
- Locarno**, Pact of, 4893
- Germany and, 4903, 4925
- Lochmauer**, megalithic stone, 621
- Locke**, John, 4048, 4050
- on French peasantry, 3855
- Locomotion**, early steam engine, 4356
- Lodebar**, city of Gilead, 827
- Lodge**, Sir Oliver, portrait, 4696
- and spiritualism, 4569
- and wireless telegraphy, 4703
- Lodi**, bridge of, battle, 4692, 4181
- Loess**, distribution in Europe, 193, 239
- in Mongolia, 441
- in North China, 441-42
- extent, map, 900
- Logie**, Aristotle's theories, 1462
- and Greek philosophy, 1454
- Logos**, doctrine, 644
- in Fourth Gospel, 1494, 2330
- ideas about, 2331-32
- Origin on, 2331
- Platonic ideas, 2330
- Logovsrd**, village, near Monastir, 2478
- Lohan**, disciple of Buddha, model, 2554
- Lombard**, Peter, 3015
- Lombard Art**, carving at Ravenna, 33
- at Orviale del Friuli, 2415, 2434
- Lombard League**, 2737, 2701-02, 2764
- Lombards**, 2214, 2270, 2762
- dominion in S. Italy, 2002
- Franks conquer, 2437
- and Norinans, 2603
- and Papacy, 3326-7, 2180-87
- stalls of kings at Orviale, 2415
- Lombards**, Kingdom of, 2352
- divisions, 2751
- Franks absorb, 2415-17
- Lombardy**, agriculture in, 4204
- communes in, 2752, 2758
- Frederick I and, 2760
- Guelphs and Ghibellines in, 2759
- iron crown of, 2354, 4099
- male dress (1404), 3206
- Napoleon and, 4099
- tyranny in, 2765
- See also* under Italy
- Lomonosov**, M., Russian writer, 3936
- London**, Adelaide House, 5034
- Agas, map, 3569-61
- air raid on G.P.O., 4815
- Alfred the Great's penny, 2497
- banqueting house, Whitehall, 4034
- Bloomsbury Square in 1780, plate f.p. 4319
- Bolshevik party in, 4950
- Cobbett on, 4284
- communist meeting, 5073
- Danish attempts on, 2470
- siege (994), 2526
- daylight raid over, 4325
- in 18th century, 4253
- architecture, 4237-40
- death rate, 18th century, 5045
- 15th century wealth, 4425
- first charter, 2708
- general strike in, 5075
- Great Plague, 3116, 3117
- Guildhall, 4426
- Hanseatic League, 3058
- Steelyard, 3059
- historical strata, 26, 27
- medieval people, 3098
- Old Swan Theatre, 3559
- Parliament House, 17th cent., 3670
- port of, 18th century, 4231
- Authority's building, 1554
- on Protector's seal, 3732
- radicalism in, 4433
- Renaissance in, 3562
- Roman, 2144, 2148-49
- episcopal see, 2146
- on gold medallion, 2125
- mosaic pavement, 2155
- Wall, 2150
- wharves, 2030
- Royal Exchange (1820), 4427
- Saxon, 2460, 2470

London

London—*cont.*

—streets in 18th century, 4252
 —Temple Church, 2812
 ——Crusaders' ellipses, 2802
 —Tower of, 15th cent. drawing, 3100
 ——S. John's Chapel, 2611
 ——White Tower, 2609
 —Wren's plan for rebuilding, 3238
 —See also Charing Cross; Cheapside;
 St. Paul's; Westminster and
 individual districts.
 London Bridge, 15th cent., 3100
 London Clinic, sunlight treatment, 5057
 London Conference (1921), 4888
 London, Convention of (1884), 4820
 London Corresponding Society, 4133
 London, H.M.S., camouflage, 4659
 London Hospital, foundation, 5016
 —in 1763, 5044
 ——medical education, 5016
 London, Treaty of (1601), and colonisa-
 tion, 3616
 ——(1841), 4273
 ——(1871), 4387
 ——(1913), 4682
 ——(1925), see Locarno Pact
 Longbow, 2940, 2931
 —use in England, 2917–40, 2908
 Long boade, Bushmon, 208
 —distribution, 228
 —evolution, 227
 —skull comparison, 196
 —types, 229
 —Welshman, 211
 Longbi, Pietro, painter, domestic
 group, 3044
 Loos house, Iroquois and Baroque, 289
 Longinus, Bishop, conversion of
 Nubians, 2637
 Longinus, philosopher, 1363, 1210
 Longleaf, plan of gardens, 4300
 Loog Parliament, dissolved, 3733
 —medal, 3675
 ——restricta supplies, 3603
 Longwood, William, clergy, 2929
 Longthorpe, Manor house, 3420
 Longus, Diphnia and Chios of, 1302
 Long Wall, Constantinople, 2291
 Longwy, Germanus take (1914), 4747
 —Prussian take (1902), 4087
 Lonorlus, Gaulish leader, 1526
 Loqua, Egyptian, 560
 —French, 18th cent., 4416
 —power, 36, 4330
 —primitive, 250
 Loes, captured mine crater, 4806
 —effects of bombardment, 4807
 Looting, in Thirty Years' War, 3024,
 3024–5
 Lopez, F. S., dictator of Paraguay, 4325,
 4326
 Lord, Thomas, cricket ground, 4227
 Lord Protector: see Cromwell, Oliver
 Lords, House of, Charles I in, 3662
 —James I in, 3656
 ——medieval position, 3657
 ——power curtailed (1910), 4579
 Lord's Cricket Ground, 4227
 Loredano, Doge of Venice, pl. f.p. 3011
 Lorenzetti, Pietro, painting, 3202
 Lorna Doone, motto, 1361
 Lorraine, 2122
 —Germanus take (1871), 4386
 —Lords XIV loses, 3749
 —Stanislaus I obtains, 3884, 3886
 —See also Alsace-Lorraine
 Lorsch, Monastery of, annals, 2430
 Lortzing, Uudine, 4316
 Lósoher, Valentin E., library, 3958
 Lothair, king of France, 2507
 Lothair, king of the Franks, crystal, 2420
 Lothair I, emperor, 2421–22
 Lothair II, emperor, 2657
 —claus Stelly, 2691
 Lothair, king of Italy, 2771
 Lothair, king of Provence, 2501
 Lothair, son of Emperor Lewis I, 2493
 Lotharingia, 2493, 2496, 2499
 —See also Lorraine
 Lothian, Scottish possessor, 2708
 Lotus, Egyptian emblem, 544
 ——giants carry, 707
 —in Indian symbolism, 2395
 Lotus eaters, in Homer, 1171
 Lotus of the World, 450, 2304–05, 2307

London, John G., landscape gardener,
 4239
 Louis II, of France, 2193
 Louis IV, of France, 2506
 —and Duke of Normandy, 2008
 Louis V, of France, 2507
 Louis VI ('The Fat'), of France, 2658
 Louis VII, of France, 2659
 —on crusade, 2660, 2903
 —marriage, 2659
 Louis VIII, of France, 2826
 Louis IX (S.), of France, 2826–27
 —challenge from Maung Khan, 2850
 —on crusade, 2804–05, 2810, 2821
 —painter, 2810, 2822
 —and Roman Law, 3609
 —Sainte Chapelle built, 2813
 Louis XI, of France, 3143, 3017
 Louis XII, of France, cartoon 3298
 —in Italy, 3297, 3298
 Louis XIII, of France, 3584, 3585, 3594
 —death, 3597
 —woman at court of, 3089
 Louis XIV, of France, 3533–74
 —accession, 3507
 —age of, 3737–63
 —as child, in Paris Parlement, 3598
 —compared with Justinian, 2305
 ——Napoleon, 3872
 —with court ladies, 3836
 —crossing the Rhine, 3741
 —death, 3877, 3879
 —and family, by Largillière, 3357
 —France under, 3833–74
 —as Le Roi Soleil, 3834
 —Louise de Querouaille an agent,
 plate f.p. 3983, 4002
 —love affairs, 3993
 —nationalism under, 3611
 —and the parlement, 3676
 —receiving papal envoy, plate f.p.
 3855
 —revoking Edict of Nantes, 3870
 —Rigaud's portrait, 3766
 —as young man, 3739, 3835
 Louis XV, of France, accession, 3870,
 3882, 3915
 —Mme. de Pompadour, plate f.p. 3983
 Louis XVI, of France, 3915, 3916, 4038
 —closes Assembly Hall, 4158
 —declares war against Austria, 4080
 —execution, 4088
 —and the Girondins, 4171
 —Mirabeau and, 4160
 —receiving Necker's accounts, 4131
 —as sunshelter, plate f.p. 4090
 —at States-General, 3919
 —at Varennes, 4083
 Louis XVIII, of France, 4106, 4107, 4206
 —and constitution, 4250
 —equality under, 4149
 —flight, 4108
 —France under, 4280
 Louis (of Nevers), count of Flanders,
 3081–82, 3083, 3084
 Louis (of Maelo), count of Flanders,
 3081–85
 —Ghent burghers before, 3084
 Louis, duke of Orléans (d. 1407), 3128
 For German kings and princes see
 under Lewis
 Louisbourg, captured by British, 3895
 —Shirley, and capture of, 4025
 —siege of, 3897
 Louise, queen of Prussia, 3982
 Louisiana, bought by U.S.A., 4112,
 4519
 —and the suffrage, 4495
 Louis Napoleon: see Napoleon III
 Louis of Provence, claims Naples, 3009
 Louis Philippe, abdication, 4363
 —accession, 4264, 4268
 —at Grand Trianon, 3839
 —in July Revolution, 4269
 —Lafayette and, 4165
 —middle classes and, 4139
 —at New Cross station, 4366
 —with sons, 4268
 Lourdes, Aurignacian carving, 215
 —horror engraving, 198
 Lovemont, Germans take, 4703
 Louvois, Marquis de, war minister,
 3743, 3749
 Louvre Museum, Bonaparte takes
 Italian art treasures to, 4183

Luther, Martin

Lovelace, Richard, poetry, 3712–13
 Love-songs in Babylonian, 570
 Lovett, William, and co-operation, 4437
 Low, Sir Hudson, on St. Helena, 4108
 Lowestoft, Germans shell, 4812
 Loxomama, fish, fossil head, 115
 Loyalty, Oath of, French Revolution,
 4082, 4083
 Lo-yang, Chinese capital, 442, 3515
 Loyola, Ignatius, 3316, 3630, 3632
 —death, 3636
 Lubanain, Maya ruins, 2583, 2585
 Lubek, Hanswale League, 3050–52
 —peace of (1629), 3593, 3611
 ——and balance of power, 3645
 —Russians in, 3027
 —Shipping Guildhouse, 3052
 Lubin, union of, 3021
 Lucan, poet, Pharsalia, 1894
 ——St. George teaching, 1763
 Lucanians, Greek lights with, 1604
 Lucas, 2757, 2906
 Lucerne, tribe, 1795
 Luceria, Latin colony, 1005
 Lucerne, joins Swiss confederation,
 3087, 3090
 —medieval walls, 3087
 —opposition to Austrians, 3090
 Lucian, on cult of Hierapolis Syriae,
 757
 —Dilogues of the Dead, 1302
 Lucian, of Samosata, teachings on the
 Logos, 2331
 Lucilius, Roman poet, 1887, 1891
 Lucius II, pope, death, 2735
 Lucius, brother of Mark Antony,
 revolt against Octavian, 1792
 Lucius, of Patric, Greek romance, 1808
 Lucius Caesar, son of Agrippa, 1847–48
 Lucius Julius Brutus: see Brutus
 Lucknow, famine victims at, 4472
 —siege of, 4483, 4484
 Lucretius, Roman poet, Epicurean
 doctrines, 1888, 1009–10
 —attitude to religion, 1902
 —on Latin language, 1881
 —on pity, 1903
 Lucretius, Lucius, campaign in the East,
 1774–77
 Luernomo, Etruscan city-state pres-
 dent, 798
 Ludendorff, Erich von, 4776
 —resignation, 4781
 —and 2nd battle of Somme, 4777
 Ludgate Circus, 1810, plate f.p. 1919
 Ludius, or Stadius, Roman artist, 1034
 Ludlow, sayings from church, 3577
 Ludlow, Edmund, on Cromwell at
 Drogheda, 3727
 Ludlow, Joseph M. F., Christian
 socialist, 4675
 —on trade unionism, 4073
 Ludolf, duke of Svalbia, 2500
 Lugal-banda, father of Ullurmes, 578
 Lugal-zaggisi, established Mesopotamian
 hegemony, plate f.p. 402
 klug of Umma, 431, 617
 Lugard, Lord, in Uganda, 4634, 4635
 Lugdunum: see Lyons
 Lügenfeld, Lewis the Pious defeated,
 2122
 Luko, S., Lindisfarne drawing, 2678
 Lukki, raids by, 701
 Luluba, defeated by Naram-Sin, 431,
 524
 Lumbering, on Columbia River, 4505
 —in Southern States, 4197
 Lumbini, Buddha's birthplace, 1209
 Lunacharsky, Russian revolutionry,
 4051, 4950
 Lunatics, treatment, 19th century,
 4403, 4409
 Lune, area of, 1479
 Lunéville, peace of, 4096, 4186
 Lung Chi, emperor, 2350
 Lung-mên, Honan Buddhist sculp-
 tures, 2550
 Luuga, evolution of, 113, 114
 Lupercalia, ceremony, 1598, 1744
 Lusitania, sinking of, 4732, 3733, 4754
 Lusitanians, opposition to Rome, 1700
 Lutarus, Gaulish leader, 1526
 Lute, introduction into Europe, 3280
 Luther, Martin, 3345–57
 —Bible, 3346, 3351

Luther, Martin—*cont.*

- denunciation of revolt, 3697
- indulgences denounced, 3302, 3349
- influence of Huss on, 3077
- kidnapping of, 3311
- and modern state, 3697
- political aims, 3343, 3352
- receives papal envoy, 3681
- and Renaissance, 3332
- represented in psalter, 3075, 3076
- Luthoranism, economic factor, 396
- formation, 3342
- in Italy, 3248
- in Scandinavia, 3313
- teachings, 3161
- Luttrell Psalter, drawings from, 3097, 3125, 3432, 3450, 3452
- Lutzen, battle of (1630), 2649
- Lutzen, battle (30 Years' War), 3590, 3640, 3660-51
- Lutzw (ship), at Jutland, 4847, 4848, 4851, 4853
- Luxembourg, Marshal, French general, 3748
- Luxemburg, neutrality violated, 4745
- Luxeuil, monastery, 2679
- Luxor, statue of Ramesses II, 1003
- temple of Amen, 705
- Lvov, Prince, Russian premier, 4940
- Lycænia, speech of, 1998
- Lycæum, of Aristotle, 1450, 1461
- Lycia, and Phœstus Diak, 607
- timber in, 467
- undecipherable inscriptions, 807
- women warriors, 373
- Lycians, allied against Egypt, 704
- linked identified with, 791
- notorious for piracy, 3802
- Lyeon, of Hieraclea, building transaction, 1552
- Lyceophon, of Chalcis, poet, 2168
- Lycortas, altitudo to Rome, 1681
- Lycurgus, of Sparta, constitution, 1593
- Lycurgus, Horses of, sculpture, 2291, 2296
- Lyddington, Bede House, 3493
- Lydia, has relief, 1094
- Croesus of, 1085-86, 1087
- Greek states and, 1002
- help in early Church, 2178
- mounted soldiers, 1085
- Persian conquest, 1085-86
- raided by Chimerians, 865
- uses Greek troops, 1003
- Lydiads, tyrant of Megalopolis, 1674
- Lyell, Sir Charles, geologist, 803, 304
- Lyuu, brass of merchant, 2908
- Lyobna, native name of Mitha, 2581
- Lyons, altar at, 1870
- battle at, 1978
- Christian persecutions, 2181
- chassacore at, 4147
- Roman aqueducts, 2013
- silk industry, 3237, 4117
- weavers' riots, 4083
- Lyre, early Greece, 1284-85
- Lerna-cotta, Palikastro, 767
- Lyseander, Spartan statesman, 1245-46
- Lythmaelus, king of Thraee, 1585
- Lythmaelus, general of Alexander, 1410
- death, 1411, 1414
- power in Asia, 1413
- Lythpup, of Sicyon, Apoxyomenus, 1307
- sculptures at Delphi, 1313
- statues of Alex. bodyguard, 1431
- Lystra, language of inhabitants, 1908
- Lyttelton, and blue-stockings, 4219
- Lytton, Lord, in India, 4468

M

- Ma, Cappadoelian goddess, 2086
- Maat, ostrich feather the symbol, 651
- Mably, Gabriel de, and communism, 4070
- MaAdam, J. L., road-making, 4345
- Macao, Portuguese settlement, 3625
- Macaronia, 4212, 4232
- Macartney, Earl, 4653, 4654
- Macaulay, Lord, 4436, 4537
- account of Revolution, 9
- portraits, 10, 4536
- Macaulay, Rose, novelist, 5016
- Macbeth, and Malcolm Canmore, 2510
- Macabasan family, policy, 1778
- Macabean Wars, 1702-03

- Macabæus, Jonathan, 1703, 1954
- Macabæus, Judas, 1702-03, 1954
- Macabæus, Mattathias, and Antiochus IV, 1703
- Macabæus, Simon, 1702-03, 1954-55
- McCormick's Reaper, 4505
- Macedonia, Alex., labour M.P., 4678
- McDonald, J. Ramsay, 4891, 4892
- and Geneva Protocol, 4931
- McDonald, Walter, Irish divine, 2676
- Mace, Egyptian, 497, 559
- medieval, 2607, 2930
- of the Scorpion, 497
- Macedonia, Ancient, 1422-50
- army, 1405, 1429
- at Granicus, 1432-33
- types of soldiers, 1431, 1434
- dynasty immigrated, 2425
- empire after Alexander, 1400, map, 1582
- before Alexander, map, 1402
- Gaul overrun, 855
- Greece dominated, 1584
- Greek states, lost, 1679
- Iron Age in, 1034
- kingship in, 883
- lake villages in, 632
- Mycæan object from, 860
- settlements in, 787
- people of, 1127
- portrait, head, 35
- rise to power, 1401, 1671-74
- Roman coins, 1680
- conquest, 404, 1680, 1682
- rule, 406, 1682, 1694-96
- Macedonia, Modern, after Berlin Congress, 4554
- League of Nations and Greek refugees, 4920
- Macedonian War, First, 1077
- Macedonian War, Second, 1679, 1687
- Macedonian War, Third, 1681, 1694
- Macellum, in Rome, 2058
- Macchaon, treats wound of Menelaus, 848
- Macchaut, G. de, 14th cent. composer, 2908
- Macchiavelli, N., 3218, 3313, 3604-05
- Italian unity, 3297
- on Roman methods, 1707
- Savonarola and, 3248
- torture applied, 3233
- Macchia Gnu, carrier, 4827
- with masked gunners, 4795
- Machinery, for agriculture, U.S.A., 4505
- instrument of capitalism, 4990
- Macchi Picchi, Inc. fortress, 3380-1
- MacKail, J. W., portrait, 1566
- Mackensen, A. von, Bukarest, 4766
- invades Dobruja, 4766
- overruns Galicia, 4758
- in Poland, 4752
- MacKenzie, Compton, novelist, 5010
- McKinley, President, W., 4512, 4513
- Macias, Daniel, Bérminger, 4291
- Macmahon, Marshal, portrait, 4385
- Maepherson, James, Oslan, 4399
- Macrianns, prefect, treachery, 2118
- Macrianns, emperor, 2110-11
- Macro, murder of Tiberius, 1852
- Soljan superseded by, 1852
- McTaggart, Dr., definition of a mystic, 3026
- Madagascar, annexed by France, 3840, 4560
- pirate base, 3817
- Madra, rediscovered, 3530
- Madro, Francisco, in Mexico, 4727
- Madhu the Younger, Mogul, painter, 3769
- Madison, J., President U.S.A., 388, 4112
- Madonna: see Mary, Virgin
- Madras, 3895-97
- East India Co., depot, 3003
- Madrid, occupied by French, 4192
- Madrigal, 2968
- Mæceus, Gaius C. 1847
- depleted on frieze, 1862
- government of Italy, 1843
- Mæcia, tribe, 1801
- Maenads, dance of, 1385, 1386
- Maenake, near Gibraltar, 1053
- Mæzel, Nicropo, 4045
- Magas, conquered by Naram-Sin, 431
- Magazius, German, 3940
- Magdalena, river of Colombia, 4835

- Magdalenian Culture, artistic taboo of, 250
- art development, 251-55, 256-57
- ear modelled in clay, 251, 252
- bone harpoon heads, 249
- fish hooks, 253
- bull-roarer as amulet, 299
- cave-dwellings, 141, 248, 250
- comparison with Rûhlen, 204
- diagrammatic plate f.p. 220
- flint tool, 27
- horse's head, carved, 253, 256
- implement with fox's head, 248
- regional chronology, 220
- sledge on pendant, 290
- spear throwers, 248
- Magdalenian Race, in Europe, 629
- Magdeburg, sack of, 3595, 3623
- siege of, 3646, 3647
- Magellan, Fernao, 3304, 3537
- Magellanic Cloud, 66
- Magellan Strait, discovery, 3304
- early map of, 3533
- Maggiore, Lake, lake dwellings, 618
- Maghda Kingdom, 1587, 2209
- See also Mauryan Empire
- Magie, Assyrian religion and, 971
- cave-dwellers and, 249-252
- early cultivators and, 221
- Egyptian medicine and, 562
- religion and, 546, 709
- Greek, 1757
- in hunting societies, 215
- in medical history, 5639
- savages' use of, 306
- universal symbol, 299
- warrior's outfit and, 288
- See also Witchcraft
- Magistrat, in Greece, 1121
- in Moorish Spain, 3284, 3289
- in Rome, 1700, 1798, 1807
- Maglemose, raft-dwellers, 2215
- Magna Caria, 2748, 2749
- Magnæ (Kenchester), Romans at, 2148
- Magna Græcia, 1417
- schools in, 1472
- See also Greece
- Magna Mater, see Cybele
- Magnentius, 2193, 2194-05
- Magnea (Asia), battle near, 1689
- Magnesian Limestone, stratification, 104
- Magnetism, Gilbert's discoveries, 8322
- Magnus Maximus, coin, 29
- Mago, b. of Hannibal, defends Carthage, 1591
- Magyars, 2490, 2510, 3140-63
- Avar merging with, 2478
- Hungary invaded, 439, 3148-40
- origin, 2206, 3147, 3153
- Otto the Great defeats, 2501
- Mahabharata, Indian epic, 2400
- Mahapurusha, the Buddha as, 1215
- Maharbal, Numidian commander, 1659
- Mahasma, El, burials, 490
- gaming table from, 499
- Mahavira, founder of Jainism, 1209
- Mahayana, Buddhist sect, 1211, 2398
- rock sculptures at Yun-kang, 2549
- Mahdaji Scindia, Mahratta king, 3798
- Mahdi, The, revolt, 4561, 4636, 4637
- tomb, 4571
- Mahdi, Khalif (775-785), reign of, 2412
- Mahdiyyah, Africa, capture by Pisa, 2755
- Mahmud, sultan of Delhi, 3171, 3175
- Mahmud II, sultan of Turkey, 4272
- suppresses Janissaries, 4271
- Mahmud, son of Malik Shah, 2790-92
- Mahmud Khan, king of Transoxiana, Karluk invasion of country, 2792
- Mahmud of Ghazni, 2514, 2780, 3100
- tower of victory, 2783
- Mahomedan Architecture, Africa, 326 S, 3271-72
- in India, 3166-68, 3177-80
- Moorish, 2536-38
- ornament, 2539, 3177, 3282
- in Spain, 3268-82
- Mahomedan Civilization, 2529-42, 3201
- in India, 3170
- influence on Europe, 2542, 3413
- in Spain, 2542, 3264-92, 3265
- Spanish periods (tables), 3267
- See also Arabic Culture: Moors
- Mahomedan Literature, 2542, 3239-90

- Mahomedanism, 2362-78**
 —and alcohol, 2377
 —calendar, 2378
 —and Christianity, 2045
 —conquests, 2345-52, 2355-58, 2361
 —converts, early, 2530
 —creed, 2367, 2373-76
 —dynastic struggle, 2345, 2351, 2372, 2411
 —expansion, early, 2409
 —Golden Age, 2529-42
 —Hindu influence, 3105, 3178
 —images condemned, 2358
 —in India, 2833, 3164-80
 —Judeo influence, 312
 —Kaiser William and, 4570, 4577
 —mosques as universities, 2533
 —orientalism in, 1202
 —People of the Book, 3165
 —pilgrimages, 3271
 —to Mecca, 2362, 2375-76
 —poli-tax on unbelievers, 2530
 —in Spain, 3267
 —tenets, 3271
 —Turkish support of, 2779-80, 2784
 —Turks accept, 2513
 —women in, 378
Mahomet, 2362-78
 —influence on Arabian history, 2520
 —succession question, 2345, 2372
 —sword, 2530
 —teaching, 2363-78
Maldon, John, description of Cromwell, 3730
Malkon, Scythian metal work from, plate J.p. 326
Mall Armour, 2927, 2928, 2929
 —Norman, 2607
 —12th cent., 2721
See also under Armour
Mallet, De, geologist, 4067
Maine (ship), blown up, 4570
 —salvage work, 4575
Maize, Duo de, Mme. de Maintenon and, 3090
Maintenon, Mme. de, 3090
 —Chamillard her creature, 3097
 —influence on Louis XIV, 3850
 —with Louis XIV and family, 3857
Mainz, early printing centre, 3184-86
 —Roman bridge, 3039
 —sacramentary, 2669
 —(only in cathedral, 3006
Mainz (ship), sunk, 4535
Maione of Bari, Sicilian minileter, 2008
Maipo, battle of, 4322
Maitland, F. W., as historian, 18
 —portrait, 11
Maize, 2571, 2573-74, 2588, 2590
 —in Aztec MS., 3304
 —Maya cod, 2586, 2588
 —in moonson lands, 330, 345
Majesty, Charter of, 3626
Majolica, origin of word, 2327
Majorian, emperor, 2203
Majuba Hill, 4560, 4561, 4620
Maket Tomb, Mincaen vase in, 785
Malabar, pepper trade with Rome, 1988
Malacca, Dutch occupation, 4025
 —Portuguese occupation, 3535
Malachite, mines in Sinai, 680
 —pigment for eyelids, 480, 563
Malachy O'Morgair, S., influence on Irish culture, 2082, 2089
Malaga, pottery, 3261
Malakand Pass, as Aryan route, 451
Malakoff Fort, captured by French, 4374, 4375
Malamocco, early Venetian cap., 3030
Malania, 3118-19
Malaspina, Marquesses of, rule in Tuscany, 2759
Malaterra, Geoffrey, on Normans, 2003
Malatesta, Sigismondo, 3218, 3219
Malatia, Hittite sculptures at, 717, 718, 737
Malaxos, Maonel, chronicle of, 2631
Malay Archipelago, Dutch monopoly over, 4625
 —modern plough, 346
 —native superstitions, 340
 —rubi forest, 330
 —Theban pastoral in, 445
 —yellow race in, 316
Malaya, British, formation, 4020
Malazgird, battle: see Manzikert
Malcolm III, (Cannmore) of Scotland
 —Macbeth overthrown by, 2510
 —progress under, 2658
 —results of English marriage, 2658
Malcolm IV, of Scotland, on Kelso Abbey charter, 2658
Malherbe, Francois de, French classicist, 4040
Malik Shah, Seljuk sultan, 2045, 2787-88, 2790
 —succession, 2701-92
Malik Shah II, Seljuk sultan, 2792
Malines, S. Humbold, tower, 2833
Mall, The, in 18th cent., 4241
Malli: see Multau
Maimo, convention of, 4369
Malnutrition, post-war, 4907
Malplaquet, battle of, 3700
Malra, captured by British, 4096
 —by Napoleon, 4094, 4185
 —Cuthughian possession of, 1631
 —injection with Napoleon over, 4183
 —negotiable remains in, 270, 614
 —neolithic carvings, 270, 469, 614
 —Saracen possession of, 2540
Maltese Language, Arabic influence on, 2540
Malthus, Thomas Robert, 4070
 —economic theory, 4285
 —Principle of Population, 4070
 —sociology, 4533
Malahapuram, Hindu shrine, 2309
Manchukuo, 2830-22, 2901
 —crushed by Napoleon, 4094, 4185
 —expansion of power, 2832
Manetines, 1576
Manetz, attack on, 4768
 —siege battery at, 4767
Mammals, advent, 108
 —ancestors, 118, 119, 120, 131
 —become dominant, 100, 160
 —evolution, 120
 —evolutionary centre, 131, 140
 —migrations, 131-138
 —variety, Miocene Period, 133-5
Manmoth, carcase from Siberia, 191
 —charm from task, 250
 —in England, 110, 136
 —Magdalenian painting, 199, 255
Mannun, Abbasid Khalif, 2424-25
 —encouraged Arab culture, 2532-33
Man, age of, 45, 182, 189, 104, 185
 —biological history, 106
 —blood affinities, 183
 —bones, earliest, 157
 —bioblastic conception, 1210
 —cerebral distribution, 182
 —Confucian idea, 1226-27
 —cranial distribution, 230-31
 —discrete affinities, 183
 —domestic animals and, 342
 —dual nature of, 314
 —early home zone (first phase), 193, 196, 209, 226
 —(2nd phase), 210
 —(3rd phase), 230
 —economic classification, 2568
 —embryonic history, 180, 183
 —evolution, 44-45, 141-185
 —first migrations, 226
 —genealogical tree, 184, 185
 —gorilla, comparison with, 174, 176
 —in the grasslands, 340
 —Greek conception of, 1193
 —group associations, 187-88, 307, 311-12
 —history and, 16, 141, 104
 —in the jungle, 311
 —Klamm fashioning, 641
 —missing links, 174
 —mystical side, 293
 —origin, 161-4, 174, 184, 193
 —Pleistocene, 147, 148
 —Pliocene, 154, 167
 —posture, comparison of, 158, 159
 —primitive dwellings, 288-89
 —skull comparisons, 169
 —social instincts, 313
 —Stoic theory, 1466
 —supernatural beliefs, 350
 —symbolical drawings of, 265
 —Taoistic idea, 1220
 —tribal instincts, 314
 —ubiquity, 333
Man, Brotherhood of, Seneca on, 1906
Man, Isle of, language, 1607
Manna, and supernatural power, 210
Manaoe, development, 4329
Manasarovara, sacred lake, 450, 2394
 —2397
 —pilgrimages to, 2398
Manasseh, king of Israel, 831-32
Manasseh, priest, expulsion, 1950
Manasseh, tribe, 812
Manasseh, possibly Moses, 814
Manchester, Bridgewater canal, 4345
Manchester and Liverpool Rly., Stephen-son and, 4350
Manchester School, 4534
Manchuria, Japan in, 4423
 —Mongol occupation, 441
 —primeval tools, 84
 —railways in, 149
 —Russian evacuees, 4508
Manchurian, racial type, 2384
Manchoe, China under, 4635-66
 —last emperor, 4664
 —revolution and overthrow of 1911, 4664
 —rise of, 3524
Manchini, Hortense, mistress of Charles II, 4001
Manchini, Marie, loved by Louis XIV, 3001
Manoana, consul in Spain, 1700
Mancipatio, Roman legal term, 1645
Mango Capao, then leader, 3379
Mandate, 4612, 4578
Mandeville, Bernard, philosophy, 1051
Mandeville, Sir John, illustration from travels, 2111
Manegg, Manesse von, coat-of-arms, 2082
Manes, in Roman religion, 1877
Menet, Edouard, Bur des Folles Berges, 6024
 —and post-impressionism, 5020
Manetho, Egyptian chronicler, 423, 2109
Manfred, king of Sicily, 2825, 2846
Mangru Khan, Mongol, 2817, 2853
 —challenge to S. Louis, 2850
Manhattan, from air, 6053
 —bought by Peter Minuit, 3549
 —in 1746, 4010-11
Mani, religious founder, 2308-00, 2333
 —cultivation, 2331
Manichaean, persecution, 2188
Manicheism, 1500, 2300, 2333
 —Juchrist celebration, 2334
 —suppression of, 2334
Manilius, Astronomica of, 1803
Manisio, plant, 2568
Manises, pottery, 3261
Maniethus, king of Agade, 431, 521
 —obit., 1007
Manitoba, Johns Dominion, 4007
Manili, patrician gens, 1646
Manlius, consul, 1627
Manlius Torquatus, 1410
Mann, George, cricketer, 4220
Mannal, allied with Vannites, 881
Manners, clergy and, 332
 —at table, 3427, 3432
Maanheim, National Theatre, 3960
Manoa: see Isl Dorado
Maor, 2730, 2732
Manor house, castle compared with, 3435, 3441
 —origin, 2710
 —13th cent., 3426, 3429
Ma power, in China, 5063
Maasart, J. H., built Versailles, 3839
Manefeld, Count, 3537, 3639-41
 —helps Bohemians, 3591
 —parentage, 3630
Manfield, Earl of, slavery judgement, 4503
Maasfield, Edward, buccanner, 3812
Ma Singh, palace at Gwalior, 3189
Maacourah, Battle of, 2081
 —S. Louis and, 2821
Maneur, Abbasid Khalif, 2411
 —Bagdad founded, 2531
Maategna, painter, 2239-40
 —Triumph of Caesar, 2240
Maatinea, Battle of, 1240, 1585
Maatua, surrenders to Napoleon, 4003
Manu, Code of, 2393, 2406
See also Rig-Veda

Manuel II, Byzantine emperor, 3123
Manuel Comnenus, Byzantine emperor, 2742
Manufacturers, National Association of, in U.S.A., 4518
Manumission, in Greece, 1123
 —in Rome, 1825, 1826
Manuscripts, Anglo-Norman, 2713, 2720-21, 2725-27, 2732-33, 2741, 2745
 —Anglo-Saxon, 2444, 2447, 2460, 2462, 2464, 2466-67, 2470, 3421
 —Aztec, 3394-65, plate f.p. 3311, 3371-75
 —Byzantine, 2638, 2641, 2659
 —Carolingian, 2432-33, 2437-38, 2442
 —Celtic, plate f.p. 2455, 2678, 2684-85, 2689
 —14th cent., 2789, 2854-56, 2902, 2914 plate f.p. 2926, 3007
 —15th cent., 2903-04, 2917, plate f.p. 2926-27, 2979, 3078, 3100, 3413, 3452
 —Mahomedan, 2371-73, 2531-33, 2839
 —monasteries, production, 2231-82
 —music, 2962-64, 2966
 —Persian, 2821, 2824, 2848-49, 2853
 —printing, influence on, 3186, 3188, 3194
 —16th cent., 3449
 —18th cent., 2801-06, 2810-11, 2822, 3017
 See also Fouquet; Frolasart; Skylitzes.
Manutius, Aldus (Manuzio): see Aldus Manutius
Manuza, Kalanga chief, 3402
Manwaring, Roger, bishop, 3720
Manzikert, Battle of, 2514, 2045, 2787
Manzoni, Alessandro, 4332
Maoris, racial affinities, 232
 —tattooing, 297
 —two chiefs, 4013
 —wars with, 4618-14
 —wood carving, 294
Map, Africa, from Behaim's globe, 3532
 —Fra Mauro's, 3530
 —Anaximander of Miletus' attempt, 1409
 —Catalan, of Far East, 3507
 —Drake's voyage, 3543
 —Gastaldi's, of New France, 3003
 —Goa, 17th century, 3536
 —Hondius' of Magellan Strait, 3538
 —London, by Agas, 3560-61
 —New York City, 17th cent., 3549
 —Peru, by Cabot, 3540
 —Ptolemy's, 2076, 2077
 —Ralegh's, of El Dorado, 3576
 —Russia, Jenkinson's, 3573
 —St. Croix in 1613, 3548
 —Strabo's, 2075
 —Virginia (John Smith's), 3547
 —world, showing line of demarcation, 3533
 See also Classified List, p. 5210
Mara, Buddhist demon, 1200
Marmoubo, Morgun's slips off, 3800
Marmoubo, Lakes, oil field, 4334
Marash, bronze figure from, 719
 —Hittite sculpture at, 718
 —lion from palace, 724
Marat, Jean Paul, portrait, 4161
 —and the Press, 4150
 —on Robespierre, 4177
Marathas, under Aurangzeb, 3763
 —British and, 4110
 —Moguls and, 3778, 3793
 —at Panipat, 3707
Marathon, battle, 400-01, 1006-08
 —Athenian charge at, 1310-21
 —plan and tumulus, 1093
 —view of plain, 1096
Marcel, Etienne, 3691-97
 —Jaquerie and, 3065, 3066
 —murder of the marshals, 3094
 —treachery and death, 3096
Marcellinus, Ammianus, historian, 1898
 —on China, 1891
 —on election of bishops, 2821
 —on Persian army, 2315
Marcellus, Roman general, at Syracuse, 1701
March Laws, in Hungary, 4307
March, The Spanish, 2408

Marcan, emperor, 2206, 2207
Marcelon, heretic, 2178, 2319
Marck, Comte de la, friend of Mirabeau, 4169
Marcoing, Artists' Rifles at, plate f.p. 4772
Marconi, Guglielmo, 4696, 4703
Marcomanni, wars with Rome, 1973, 1976-77, 2213
Marcus Antonius, father of Mark Antony, 1777
Marens Arelus, 1972, 1973-77
 —in Arval garb, 1900
 —Christian persecutions, 1973, 2184
 —on Christians, 2179
 —Columa, 1930, 1931, 1976-77, 2210
 —on conduct, 1903
 —embassy to China from, 2107
 —largest to the populace, 1975
 —Meditations of, 1908
 —as pagan priest, 1909
 —statue, 1926, 1974, 2243
 —Stoic and agnostic, 1908, 1909
Mardonius, in Athens, 1100, 1102-03
 —in Thracian expedition, 1096
Marduk (god), 524, 583, 639
 —anger with Sargon, 647
 —Assyrian appeal to, 971
 —in Creation story, 974, 978, 970
 —Nabuz visits, 619
 —slaying Tinnat, 639
 —temple (E-sagila), processional way, 570, 551, 553
 —(E-tenu-anti), 528, 568, 949
 —(Tower of Babel), 528, 568
Marduk-apal-iddin I, king of Babylon, 673
Marduk-apal-iddin II: see Merodach-baladan
Marduk-apal-usur, tribute from, 880
Marduk-nadin-akhs, k. of Babylon, 676
 —boundary stone, 1067
Marsengo, battle of, 4096, 4180
Mars's milk, as food, 220
Margaret, queen of Scandinavia, 3134
Margaret, queen of Scotland, 2658
Margaret, duchess of York, 2905
Margaret Teresa, marriage to emp. Leopold I, 3740
Maria, w. of Nicephorus III, 2650
Maria, queen of Hungary, 3008, 3160
 —Protestants and, 3161
Maria Christina, of Spain, 4559
Maria da Gloria, of Portugal, 4260
 —satire, 4270
Mariana, Jesuit, on kings and tyrants, 6687-8
Marian Martyrs, 3350
Marianus Scotus, in Bavaria, 2080
Maria Teresa, empress, 377, 3886, 3891
 —oath of fealty to, 3890
 —portrait, 366
 —as Queen of Hungary, 3891
Maria Teresa (wife of Louis XIV) entering Douai, 3842
 —marriage, 3739
Maria Antoinette, 3916, 4084, 4090
 —execution, 4091
 —Lafayette and, 4102
Marie de' Medici, 3584, 3585, 3908
 —entry into London, 3508-09
Marie Louise, marries Napoleon, 4104, 4193
Mariburno, castle, 2979
Marignano, battle of, 3300, 3301
Marina, wife of false Dmitri, 3927
Marine Artillery, tractor hauling gun, 4314
Marinus, proclaimed emperor, 2115
Marionetry, and women's status, 381
Maritime Law, foundations, 3340
 —medieval codifications, 2807
Maritz, General, revolt in S. Africa, 4753
Marizza, Battle of, 3154
Marius, Roman general, 2051, 2212
Marius, Gaius, 1769, 1832-33
 —consulship, 1715, 1770
 —death, 1773
 —outlawry, and return, 1772-73
 —Roman army, 1718, 1770, 1816
 —Sulla opposed, 1772
 —wars of, 1760, 1772
 —worship offered to, 1877
Mark, collapse of the, 4914, 4916

Mark, S., body taken to Venice, 3030, 3031
 —martyrdom, 2481
Mark Antony: see Antony, Mark
Mark of Brandenburg: see Brandenburg
Markets, expansion, 4996
Marlborough, H.M.S., at Jutland, 4832
Marlborough, 1st duke of, 3757, 3759, 3760
 —at battle of Blenheim, 3758
Marlowe, Christopher, criticism, 3333
Marmont, French marshal, capitulates at Paris, 4106
 —defeated at Salamanca, 4104
Marne, river, Germans retire to, 4747
 —La Tene burials, 1820
Marnen, archaeological term, 1520
Maronites (Lebanon Christians), 2806
Marozia, daughter of Theodora, 2770
Marrakesh (city), foundation, 3393
 —Kutubiyah tower, 3270, 3272
 See also Morocco
Marnix, (Calvinist) sent to Low Countries, 3681
Marriage, in Babylonia, 370, 576
 —in Egypt, 540
 —Elizabethan, 3563
 —in England, 18th century, 4235, 4219, 4259
 —in Florence, plate f.p. 3206
 —in France, 4122
 —in Germany, 18th century, 3067
 —Roman law, 2168
 —in Rome, 1740, 1827, 1828, 1936, 2005
Mars, as agricultural god, 1742-43
 —in Roman coin, 3012
 —statue, 1747
 —as war god, 1740
 —worship by Romans, 1745
Mar Sargis, Chinese Nestorian, 3508
Mars Catuzis, Gailish god, 1522
Marschner, Heinrich A., Der Vampyr, 4316
Marseilles, 4080
Marseilles (Mingalla) 1004
 —Cartilage and, 1570
 —Romans besiege, 1728, 1731-32
 —plague (1720), 3116
 —in Roman times, 1808
Marsiglio of Padua, 3071, 3204
Marsin, French general, 3759
Mars-la-Tour, battle of, 4383
Marsis-de-fer, weapon, 2948
Martial, 1805
 —epigrams, 1302, 2023, 2025
 —epitaph on Egyptian actor, 2026
 —inacination of Rome for, 2028
Martignac, French minister, 4208
Martin I, pope, 2343, 2352
Martin V, pope, 3136-37
Martin, S., of Tours, 2321
Martin, disciple of Johannes Scotus, 2688
Martin, Richard, and R.S.P.C.A., 4401, 4403
Martin Chuzzlewit, Sairey Gamp and Betsey Prig, 4406
Martinsau, Harriet, and social reform, 4405
Martinsago, Lodovico, portrait, 3047
Martine, and defenestration of Prague, 3899
Martinpuich, trenches at, 4808
Martius, Ancus, Ostia founded, 1874
Martiza, satrap of Susa, 1900
Martyris, bishop of Antioch, 2340
Martys, early Christian, 2177, 2181, 2184, 2180
 —English in Mary's time, 3350
 See also Christians, Early
Maru-Aioa, pleasure, floor from, 749
Marvell, Andrew, on Lady Castlemaine, 4001
 —portrait, 3715
 —and puritanism, 3713
Marx, Karl, 388, 4287, 4295
 —argument refuted, 5074
 —in London, 4085
 —in Paris, 4084
 —on passion for equality, 300
Mary, Virgin, 2337-38, 2340
 —Byzantine figures, 2630, 2640
 —cult of, 331
 —by Donatello, 3242
 —by Giotto, 3332

Mary, Virgin—cont.

- Gothic sculptures, 2863, 2864, 2886
- by Michelangelo, 3244, 3330
- Mogul fresco, 3769
- mosaic at Palermo, 2697
- Mary I**, queen of England, 3460
- marriage, 3460
- presentations of, 3718
- Mary**, queen of Scots, 3463
- claims English throne, 3400
- execution, 3476
- imprisonment, 3476
- marriage to Francis II, 3461
- portraits, 3462, 3479
- Mary**, duchess of Burgundy, marriage to emperor Maximilian, 3140, 3142
- Mary of Guise**, wife of James V of Scotland, 3461, 3462
- Maryland**, settlement, 4067
- Masaniello**, Neapolitan rebel, 3000
- Mas d'Azil**, carved horse's head, 233, 256
- cape, river-cut, 30
- painted pebble charms, 265
- spear-throwers from, 248
- Massefield**, John, poetry, 5017
- Masbusha** or **Mesbush**, name of Libyan in Egypt, 1016
- Rameses III defeats, 675
- Mashonaland**, occupied by British, 4033
- Mashonas**, 3103
- Masinissa**, Numidian prince, 1631
- Roman alliance, 1601, 1085
- Mask**, cloth from Mycenae, 781
- in primitive cult, 300
- Mason**, 'comacini', 2142
- Gothic age, 2384
- Illumine, 724
- Masonry**, Roman tools, 2030
- Masque**, costumes for, 3715
- Mass**, Eucharist gradual, 2061
- Luther's objections, 3347
- Mass**, lost in radiation, 61, 5007
- Massachusetts**, colonisation, 3549, 4007
- helps to defend Jamaica, 4024
- new charter (1682), 4023
- Massachusetts Bay**, Dighton Rock, 2528
- Vikings and, 2527
- Massachusetts Company**, 4007
- Massagetae**, Persia invaded, 2193
- Massalia**: see Marseilles
- Masséna**, defeats Korsakov, 4095
- surrender at Genoa, 4096
- at Torres Vedras, 2940
- at Zurich, 4094
- Messillon**, French preacher, 3800
- Mass Production**, in Mycenae, 788
- in U.S.A., 4736
- Mastaba**, possible origin of dolmen, 021
- precursor of pyramid, 424
- tombs, Egypt, 490, 491
- Master and Slave**, Babylonian dialogue, 674, 385
- Mastodon**, ancestor of elephant, 133-1, 138-9
- Mas'ud**, of Ghazni, 3166
- invasion of Khorasan, 2782
- lower of victory, 2783
- Mas'udi**, Arabic historian, travels, 2535
- Masujiro**, Omura, military schools, 4417
- Matabele**, 3403
- war with Britain, 4033
- Match-lock**, evolution, 2953-56
- Materialism**, of Elizabethans, 3557
- in 19th century, 4524
- in pre-Revolution France, 4124
- Mater Matuta**, goddess, 1734, 1730
- Materia Medica**, Assyrian, 972, 973
- Chinese, 3519
- Dioscorides, Arabic, MS., 2839
- Greek MS., 2077, 2078
- Egyptian, 562
- See also Botany; Pharmacopoeia; Plants
- Mathematics**, Arabic, 2534, 3290
- influence, 2534
- Archimedes and, 2008
- Assyrian, 976
- and Atlantic cable, 4699
- cone sections, 1482
- Descartes and, 3824
- Euclid and, 2092
- Greek astronomy and, 2079
- influence, 1482
- Hindu knowledge, 2405-08

Mathematics—cont.

- meaning of word, 1472
- Mesopotamian knowledge, 975
- Plato's development, 1481
- Pythagorean conceptions, 1472, 1473
- Mathor**, Cotton, private library, 4017
- on witch organization, 3257
- Matilda**, daughter of Henry I of England, 2610, 2658
- and English crown, 2658
- Matilda**, w. of Henry the Lion, 2737
- Matilda**, of Tuscany, 2753, 2757
- estates given to church, 2773
- supports Papacy against Henry IV, 2491, 2648
- Matisse**, Henri, modernism, 5028
- Matrarchy**, ramifications, 370
- Mattachias** of Modin, 1954
- Mattio d'Aiello**, 2690, 2705
- Matter**, Berkeley on, 4063
- indestructibility doctrine, 4520
- not indestructible, 5007
- Thomson's work on, 5061
- Matthew Paris**, 2452-53
- drawing of battle, 2830
- Franciscan friar, 3427
- investiture of a knight, 2973
- King Olaf, 2733
- Matthias**, elected emperor (1812), 3588
- king of Hungary, 3588, 3589
- issues Charter of Majesty, 3026
- in the Netherlands, 3473
- Matthias Corvinus**, k. of Hungary, 3140, 3166-69
- Matveyev**, Russian foreign minister, 3031
- Maud**, Empress: see Matilda
- Mauds**, Sir Stanley, 4772
- Maudslay**, Henry, machine tools, 4358
- Maudslay**, of Ghazni (1042), fights Seljuks, 2782
- Maunoury**, Gen., Cornuans attack, 4797
- Meupertuis**, associate of Voltaire, 4064
- Meurpes**, minister of Louis XVI, 3010
- Mauretenia**, under Roman rule, 2131
- Vandals in, 2204
- Maurice I**, Byzantine emperor, 2272-73
- Maurice**, of Nassau, 3474, 3477, 3585
- Maurice**, elector of Saxony, and Charles V, 3310
- Maurice**, of Saxony: see Saxe, Marshal
- Maurice**, F. D., Christian Socialist, 4400, 4407
- Mauritius**, captured by British, 4000
- La Bourdonnais at, 3890
- Meuro**, Fra, map of Africa, 3530
- Maurayn Empire**, 1415, 1489-90
- climate of court, 1406
- See also Maghada Kingdom
- Mausoleum**, 1488-89
- Amazon frieze, 375
- reconstruction, 1489
- Mausolus**, king of Caria, 1489
- Max Emmanuel**, of Bavaria, 3755-57
- Maxentius**, coin, 29
- Constantine's victory over, 2120
- Maximian**, emperor, 2123, 2126
- Christian persecutions, 2188
- Maximian**, S., bishop of Ravenna, on mosaic, plate f.p. 2302
- Maximilian I**, emperor, 3146, 3296
- armor, 2040, 2942
- for horse, 2936
- Hungarian troops, 3146
- landshechte encouraged, 2952
- marriage, 3140, 3144
- with Mary of Burgundy, 3144
- sends armour to Henry VIII, 2485
- and Russian ambassadors, 3035
- Maximilian II**, emperor, 3480
- pageant at Windsor, 3502
- Maximilian I**, of Bavaria, 3539, 3054
- in Thirty Years' War, 3022
- Maximilian**, emperor of Mexico, 4387, 4388, 4389
- Maximin**, emperor, 2126-27
- Christian persecutions, 2188, 2189
- Maximinus**, emperor, 2113, 2114
- Maximus**, emperor, 2207-08
- Maximus**, emperor in Britain, 2199
- Maximus**, abbot of Chrysopolis, 2343
- Maximus**, Fabius, dictator, 1722
- Maximus Rallienus**, proconsul, 1801
- Maximus**, Valerius, 1528, 1895
- Max Muller**, F., on Aryans, 636
- classical religion dogmas, 1305

Maya Art and Civilization, 2574-95

- arc, map, 2566
- calendar, 2575, 2578-79, 2606
- origin problem, 2570, 2600
- script, hieroglyphic, 1065, 2574, 2575
- Yucatan, late empire in, 2576
- See also Toltec; Zapotec
- Mayan Architecture**, 2577, 2581-85
- altars, 2574, 2581, 2591-92
- arch, false, 2581, 2582, 2609
- building methods, 2581-83, 2586
- influence on Toltec, 2584
- pyramids, 2577, 2581, 2583, 2594-95
- temples, 2577, 2581, 2582-83, 2595
- Mayan Religion**, 2586-93
- cosmological centres, 2583
- symbolism in, 2591
- Mayanan**, League of, 3377
- May Day**, medieval maymakers, 3419
- Mayenas**, Duke of, and Catholic League, 3474, 3478
- Mayfield**, medieval assembly, 2430-31
- Mayflower**, Pilgrims of, 3540, 4000
- Mayflower Compact**, reasons for, 4007
- Maynard**, Lieut., shot Touch, 3817
- Mayo**, Lord, victory of India, 4408
- Mayo**, Admiral (U.S.A.), at Tampico, 4730
- Mayow**, John, researches in oxygen, 3531
- Mayra Ceapac**, Inca ruler, 3380
- Ma Yuan**, Chinese artist, 2500
- Mazaca**: see Caesarea
- Mazanderan**, province, Persia, 1086
- Mazarin**, Cardinal, 3598, 3601, 3737, 3833-34
- Anne of Austria's minister, 3597
- and Cromwell, 3600, 3730, 3831
- and marriage of Louis XIV, 3730
- Mazepa**, in the Ukraine, 3762
- Mazer**, Rochester, 1632, 3414
- Mazzebah**, Canaanite pillars, 840
- Mazzini**, Giuseppe 4376
- founds Young Italy, 3615
- in London, 4275
- on nationality, 5062
- Mazzoni**, Guido, terra-cotta sculpture, 3216
- Mead**, beverage of early Slavs, 2476
- use in Middle Ages, 3442
- Meed**, Richard, advocate of inoculation, 3117
- and prevention of disease, 5049
- Meere**, lake village, 632
- Measures**: see Weights and Measures
- Ment**, in dietary of Babylonians, 672
- in Egyptian tomb, 760
- in Heracle Age, 847
- Meat Industry**, U.S.A., 4501
- Meaux**, fighting at during Jacquerie, 3094, 3095
- Mecca**, camel breeding industry, 2371
- caravan trade, 2365, 2371
- Great Mosque, 3362
- holy city of Islam, 2363, 2369
- Kadim, 2362, 2369, 2373
- library, 2366
- Mahomet's flight from, 2366, 2371
- life at, 2370
- religion before Islam, 2372
- sieges, 2361
- Mechanics**, Archimedes' studies, 2008
- Hero of Alexandria, 2369-70, 2071
- Mechnikov**, Ilya, and phagocytosis, 6052
- Mecklenburg**, given to Wallenstein, 3641
- Mecklenburgh Square**, London, 4239
- Medea**, wall-painting at Herakleum, 1939
- Medes**, 1127, 1133-40
- allied with Chaldeans, 832
- Vannites, 881
- appearance, map, 874
- Assyria conquered, 945
- division of Mesopotamia, 832
- merge with Persians, 1083, 1141
- in wars of Achaemenid III, 882
- Media**, kingdom, under Cyrus, 1038-85
- extension, 1777
- Iranians, appearance in, 677
- Parthian absorbs, 1777

Medici

- Medici**, family 3139
 —and Florence, 3290
 See also Catherine de' Medici;
 Marie de' Medici
Medici, Gesimo de' 3139
 — — — in Botticelli's *Adoration of the Magi*, 3139
 — — — and Cellini, 3213
 — in Florence, 3214
Medici, Costanza de' portrait, 3207
Medici, Giuliano de', killed, 3210
 — — — tomb by Michelangelo, 3229
Medici, Lorenzo de', 3139, 3140, 3217
 — — — and Botticelli, 3518
 — — — and Machiavelli, 3695
 — — — and Pazzi conspiracy, 3210
 — — — processions, 3217, 3220
 — — — tomb by Michelangelo, 3229
Medici, Piero de', and Charles VIII, 3218
Medicine, Arabian influence, 2839, 5040
 — — — physician consulted, 2839
 — — — Aesclepius and, 1370
 — — — Assyrian prescriptions, 972-3, 5039
 — — — tablet, 973
 — — — in Egypt, 502
 — — — Erasistratus and, 2065
 — 18th cent., 5042-49
 — founders, 1500, 3115
 — Galen's ideas, 2078, 5040
 — — — Greek, 1475-78, 1506, 2064-65, 2077-79, 5030
 — Hippocrates and, 1476
 — Hippocratic physician, 1500
 — under Louis XIV, 5857
 — medieval, 3337-39, 5040-41
 — modern, foundations of, 3338
 — — — progress, 5050-56
 — — — monks and, 2281
 — — — preventive, 5055
 — — — among primitive peoples, 298
 — — — quarantine and, 3113
 — — — Roman organization, 2214
 — — — study at Cordova, 3290
Medieval Architecture, beginning, 2032
 See Castles; Gothic Architecture;
 Norman Architecture
Medieval Art, religious source, 3325
 — — — centism in, 3325, 3326
 See also Gothic Architecture;
 Manuscripts; Painting
Medievalism, mind and thought, 3010-28
 See also Middle Ages
Medina, Mahomet at, 2300-07, 2371
 — — — mosque at, 2306
 — — — Yezidi's attack on, 2351
Medina Sidonia, duke of, motto, 2081
Medinet Habu, relief, 674
 — — — sculpture, 795, 796
Mediteranean Culture, 589-610, 757-90
 — — — map, 590
 See also Aegean; Crete; Greece;
 Minoan; Mycenae; Rome, etc.
Mediterranean Race, 228, 589
 — — — in the Aegean, 408
 — — — in America, 315
 — — — Caplaine a branch, 630
 — — — in Crete, 590
 — — — and Egyptians, 489
 — — — in Europe, 309
 — — — in Greece, 801
 — — — influence of immigration, 347
 — — — Nordics blended with, 309
Mediterranean Region, civilization, 340
 — — — climate, 343-44
 — — — commerce early, map, 1530, 1531, 1539
 — — — commercial centre, 2809, 2015-10
 — — — landscape at Monteno, 344
 — — — people, 589-616, 793-806
 — — — Persian domination, 1535
 — — — Phoenician cities, map, 1178
 — — — plants and produce, 344-5, 467
 — — — Roman domination, 1535, map 1874
 — — — timber resources, 407
 — — — writing, early, 36
Mediterranean Sea, 8, 400-07
 — — — geology of, 589
 — — — Greek control, 1530
 — — — piracy in, 1540, 1547, 3802
 — — — Portolani chart, 2898
 — — — U-boats in, 4858

- Meditrina**, spirit, 1713
Meditrinalia, festival, 1743
Medmenham Brotherhood, 4213
Medressen, Numidian tomb, 1631
Medum, bronze found at, 635
 — — — pyramid at, 424, 505
 — statues, 476
Medusa, Pegasus beheading, 1053
 — — — representation from Vell, 1601
Meerut, Mutiny at, 4403
Megacles, the Alamaeonid, 1093
Megalithic culture, extent, map, 619, 900, chart, 907
 — — — Eastern origin, 904
 — — — monuments of, 269, 619-29
 See also Dolmen
Megara, and Athens, 1234-10, 1376
Megasthenes, Greek ambassador, 1480
Megidlo, in the Apocryphs, 809
 — — — battle (1479), 664, 661
 — (1518), 4823, 4784
 — captured by Theodosius III, 680
 — Josiah put to death at, 833
 — ruins and valley, 840
Mehemet Ali, 4263, 4271, 4272
 — — — Egypt a conqueror under, 1006
Mehenkwa, counting his herds, 560
 — — — lotus columns in house, 551
 — — — models from tomb, 549, 556, 560
 — on Nile boat, 560
Meiji Era, Japan reform, 4413
Meister, Henri, philosophy, 4067
Mejda (Bagradas), valley, 1173
Mekran, barren coast, 465
Melanchthon, Philip, portrait, 3347
 — — — on the State, 3697
Melancsia, Britain annexed islands, 4639
 — — — celts set up, 272
 — — — primitive types, 211
 — — — totemism in, 210
Melbourne, capital of Victoria, 4000
 — — — Great Collins St. in 1857, 4609
Melbourne, Lord, and Corn Laws, 4434
Melf, treaty of, 2615
Melissande, wife of Pulk, of Jerusalem, psalter, 2638
Meli-shipak II, of Babylon, 873, 675
Melkarth, Carthaginian god, 1625
Mellins, sent to London, 2469
Melo, Apulian rebel, 2615, 2602
Melos, Athenian conquest, 1244
 — — — Cretan trade, 594, 595, 607
 — — — and Greece, trade with, 612
 — — — obsidian supplied, 591, 607
Melville, Andrew, and James I, 3719
Memel, League of Nations and, 1928
Memon, colossi of, 690, 705
Memon of Rhodes, 1407, 1429, 1435
Memphis, Ashurbanipal occupies, 800
 — — — Athenian capture, 123-24, 1232
 — — — VIII dynasty at, 427
 — — — heads of three mourners, 709
 — Hyksos locs, 435
 — necropolis, map, 508
 — Paestino subject to, 806
 — portrait heads from, 35
 — Ra-ncor, high priest at, 475
 — stone-quarries at, 500
 — III dynasty at, 462
Menachmus, mathematical studies, 1481
Menahem, murdered Shallum, 829
Menander, Greek playwright, 1357, 1358, 1359
Menander, king of Sangala, 1491
 — — — India invaded, 1704
Men-at-arms, 2944, 2940, 2947
 — — — decline of, 2956
 — — — dismounted, 2948
Menché, and Maya sculpture, 2582, 2586
Mencius, or Meng-tze, 1234, 1227
Mendeleev, Dmitri, 4525, 4526
Mendelesehn, Moses, 4073
Mendicant Friars, 2284
Mendip Hills, lead mine, 1095
Mendoza Codex, 3371, 3372-73, 3877
Menec, lines of, Carnac, 622-3, 624
Menelaus, Achaean chief, 780
 — — — Helen and, 848-49
 — — — Odysseus and, 838
 — — — palace of, 835, 839
 — — — wound of, 840, 848

Mesodiactric Races

- Mendek**, son of Solomon, 3104-05
Meas, traditional founder of 1st Dyn., 40, 423, 493, 495, 559
 — — — Naram-Sin and, 420
Meag T'iea, Chinese general, 2099
 — — — invention of brush work, 1071
Meag-tze : *see* Menelus
Meahir, 621
 — — — at Avebury, 625
 — — — in Brittany, 622-3
Meinings, Bernard, modernist landscape, 5031
Menkaura, king of Egypt, 123
 — — — pyramid at Gizeh, 425, 426, 506
 — — — statues of, 426, 479
Mensheviks, Russian party, 4041
Mensuralism, primitive, 298
 — Roman, 2241
Meotana, Caribaldi at, 4383
Meothu, tribe of near Asia, 559
Menione, Grimaldi Caves, 207
 — — — Grotte des Enfants, 336
 — — — view of, 344
Meutholen, Egyptian dynasty, 427
Meuthoten III, portrait statue, 428
Mer, rock tombs at, 543, 545
 — — — relics, 595, 1196
Mer : *see* Adad
Mercantile Marine, British, in Gt. War, 4855-57
 — — — German submarine, 4859
 See also Shipping; Ships
Mercantilism, Colbert and, 3846
 — — — effect on colonial America, 4019
 — — — revolt of philosophers, 4127
Mercator, Idorus, editor of *Forged Decretals*, 3019
Mercenaries, in Hittite army, 730
 — — — medieval, 2946, 2951
 — — — in Thirty Years' War, 3622, 3623
Merohant, 18th cent. England, 4231
 — — — English, social importance, 4427
 — — — 16th cent., 3401
 See also Commerce; Guilds; Trade
Merchant Adventurers, beginnings, 2899
 — — — English cloth trade, 2903, 3844
 — — — and exploration, 3841
 — — — headquarters at Antwerp, 2908, 2911
Merchant Guilds, 2809, 2918-19
Mercia, kingdom of, 2410, 2423
 — — — Danish invasion, 2407
Mercury, identity with Hermes, 1752
Mercury vapour lamp, invention, 4707
Meredith, George, and British insularity, 4544
 — — — hampered by reticence, 4547
Meren-ra, son of Pepi I, 478, 503
Merida, Roman bridge, 2638, 2237
Merira, group from tomb, 751
Merlin, and Stonehenge, 627
Merneptah, accession, 671
 — — — Achaean repulsed, 737, 793, 704
 — — — expelled foreigners, 682
 — — — as Pharaoh of the Exodus, 671, 815
 — — — stele of victory, 815
Merodach-baladan, k. of Babylon, 884, 885-87
Merob, Nubia, head of Augustus, 1925
 — — — pyramids at, 1099
 — — — relief from, 1030
Merovingian Dynasty, 2250, 2354
 — — — blood-stained annals, 2268
 — — — polygamy, 3283
 See also Childeric; Chilperic;
 Clovis; Dagobert
Mera, Indian hill tribe, 4450
Mersabeg, Magyar defeat, 3149
Mersteden, d. of Akhnaton, 744, 750-51
Meruac, trial, 4973
Merv, Greek inscription, 1493
Mervdash, Plain of, 1134
Merveilles, costume, 4149
Merwan I, Ommlad Khalif, 2351
Merwan II, Ommlad Khalif, 2411
Merwing : *see* Merovingian
Mesha, king of Moab, 820
 — — — Moabit Stone set up, 1079
Meshech : *see* Mushki
Meshwesh : *see* Mashausha
Meslim, of Kleh, delimitation treaty, 630
Meslier, Jean, French free-thinker, 4063
 — — — and communism, 4979
Mesodiactric races, 309

- Mesopotamia**, 453-59, 510-542
 --Adad-nirari's campaigns in, 576
 --Aryan invasion, 439
 --building materials in, 527
 --city states before Babylon, 511, 512
 --culture in pre-dynastic Egypt, 40
 --earliest civilization in, 429, 512
 --records, 421, 429, 514
 --writing, 516, 518, 1008
 --early cultivators, 220, 231, 455, 511
 --painted pottery of, 450-58
 --society in, 224, 521
 --Egypt contrasted with, 224, 507
 --Egyptian idea of, 481
 --portrait head, 35
 --first colonists in the delta, 511
 --flood, possible scene of, 514
 --gold, reverence for in, 358
 --irrigation in, 220, 525
 --kings and dynasties (3000 B.C.-A.D. 200), 410
 --kingship in, 221, 521-25, 535
 --local deities, 524, 539, 541
 --maps, early period, 455, 512
 --Mittani dominates, 557
 --plah of, from the air, 451
 --Roman conquest, 1908
 --and Persian wars, 2192, 2195
 --Sen Country of, 434, maps, 455, 512
 --strategic strength, ancient, 1125
 --tells of dead cities, 514
 --women, status of, 370
See also Assyria; Babylon; Elam; Kish; Nineveh; Sumeria; Ur
- Mesopotamia, modern**, British campaign, 4753, 4758, 1772
 --British mandate for, 4878
See further under Iraq
- Mesozoic Era**, duration, 41, 80, 90, 108
- Mosch**, Armenian alphabet, 1002
 --Scriptures translated, 2638
- Messalina**, wife of Claudius, 367, 1855
 --influence over Claudius, 3987
- Mossana**, Manerthius freebooters, 1573, 1575
 --Romans in, 1570, 1808
- Messara**, Urota, chimins from tombs, 469
- Mosonia**, Mycenaeen settlements, 785
- Messenians**, in Greece, 1041
- Messiah**, Jewish expectation, 1018
- Messina**, Black Death, 3105
 --under kingdom of Sicily, 2702
See also Sicily
- Messines**, battle of, 4771
 --Julius at, 4809, 4810
 --judiciary bombardment, 4810
 --ranks at, 1819
- Meštrović, Ivan**, Annunciation, 5037
 --self-portrait, 5036
- Metal work**, Athenian founders, 1260
 --under Aztecs, 3376
 --Byzantine, 2611
 --Celtic Britain, pl. f.p.p. 1520-21
 --Egypt, development in, 703
 --Etruscan, 1163-68
 --Hittite, 938-14
 --Maya, 2585
 --Moorish, 3282, 3287-88
 --Mycenaean, plate f.p. 756, 780-1, 783, 815
 --Roman, 1824, 1939-40, 1941
 --Scythian, plates, 926-27, 931, 932
 --in Troy, 558, 859, 861
 --Ur, 517, plate f.p. 529
- Metal workers**, Egyptian, 700
- Metaphysics**, Aristotelian theories, 1463
 --and modern science, 5011-12
- Metaurus, R.**, Hasdrubal defeated, 1591, 1603
- Metals**, family bearings, 2081
- Metcalfe, James**, road-maker, 4315
- Metellus, Quintus**, in Jugurthine war, 1769
 --Spanish successes, 1700
 --suppression of pirates, 1777
- Metempsychosis**, Indian doctrine, 1207
- Method**, Archimedes' treatise, 2068
- Methodism**, John Wesley and Nonconformity, 4201-00
 --and public relief, 5045
- Methodists**, early 19th century, 4281
 --origin of name, 4205
- Methodius**, archbishop, baptising Slav, 2472
 --mission to Moravians, 2037
- Metes**, Athens, resident aliens, 1261-2
- Motilus, Aulus**, statue of, 1912, 1921
- Motoposaurus**, fossil and reconstruction, 177
- Metternich, Prince**, 4106
 --escapes to England, 4367
 --and Greek independence, 4262
 --guides Prussia and Austria, 4257
 --statismanship, 4196
 --triumph of, 4201
- Metz, Lafayette in command at**, 4163
 --Roman aqueduct, 2014
 --surrender and cession (1870), 4380
- Mexican culture**, archaic, 2573-74, 2588
See also Aztec; Inca; Maya; Toltec
- Mexican Valley**, pre-Aztec cultures, 2574, 2588, 3301
- Mexico**, civil war in, 4326
 --conquest by Cortés, 3304, 3370
 --fight for independence, 4276
 --in Great War, 4330
 --history, pre-conquest, 3361
 --independent republic, 4277, 4321
 --physical formation, 4320
 --Spaniards in, 4005
 --Spanish half-breeds, origin, 316
 --stormy history, 4337
 --U.S.A. and, 4727
 --yellow race in, 316
- Mexico City**, Aztec building, 3363, 3375
 --destruction by Cortés, 3371-75
 --seat of Aztecs, map, 3162
 --Spanish rebuilding, 3363
- Michael**, Grand Duke, refuses Russian throne, 4948
- Mac-tse**, Chinese aborigines, 413, 446-7
- Micah**, prophet, denunciation of good, 2971
- Micah**, an exceptional prophet, 828
- Michael I**, Rhungabe, emperor, 2111, 2115, 2124
- Michael II**, the Amorani, 2421
- Michael III**, the Drankad, emperor, 2125
- Michael IV**, the Paphlagonian, husband of Zoe, 2514
- Michael VII**, Isaac, emperor, 2650
- Michael VIII**, Palaeologus, emp. 2822
- Michael I**, tsar of Russia, 3587, 3928
- Michael, S.**, Byzantine ivory, 2639
- Michael Calaphatos**, association with Empress Zoe, 2514
- Michaelangelo**, (Bonomuroli), 3226-31, 3228, 3227-31
 --Arethusa and 3214
 --ornamentations of Florence, 3227
 --influence on Dante, 3220
 --paintings and frescoes, 3326, 3327, 3328, 3329, 3241, 3241
 --poems, 3228
 --Raphael compared with, 3220
 --Savonarola's influence, 3248
 --sculptures by, 3226, 3229-31, 3330, 3351
- Michael, Julius**, on the Renaissance, 1033
- Michmas**, battle of, 677
- Michuano**, battle of, 3304
- Michsa**, king of Numidia, 1769
- Microdiergia** race, 109
- Midus**, Phrygian king, 883
 --dominions, 1002
 --tomb, 1002
- Middle Ages**, 3410-57
 --agriculture, 2669-70, 2727-28, 3078
 --arms and armour, 2927-46
 --Black Death, 3105-3111
 --castle, rude plenty in, 2983, 2985
 --Charlemagne period, 2427-43
 --chivalry, 2971-86
 --Christianity, conceptions of, 3011
 --Church 14th-15th cent., 3002-77
 --and State in, 2480, 3023
 --churchmen's place, 3415, 3110
 --commerce and guilds, 2897, 2920
 --Crusades and their influence, 2790-2815
 --doctor and patients, 3410
 --European history 12th cent., 2614-60, 2734-50
 --13th cent., 2816-23
 --14th cent., 2998, 2999-3009
 --16th cent., 3120-15
 --fairs, 2900
 --feudalism in, 2681-68, 3416
- Middle Ages--cont.**
 --15th cent. lit., 3233-39
 --food and drink, 3441
 --14th cent. lit., 3228-33
 --Frederick II and Holy Roman Empire, 2831-40
 --grossness and coarseness, 3450
 --Hansards League, 3049-61
 --heraldry, 2939-83
 --heresy in, 3542
 --hospitality and ceremony, 3443
 --huns and hostilities, 3148, 3454
 --insecurity of possessions, 3416
 --irrevocable in churches, 3450
 --Italy, Guelph and Ghibelline, 2751-65
 --15th cent. cities, 3201-30
 --life, shortness of, 2983, 3416, 3431
 --luxury, rise of, 3426, 3429
 --maps, 2818, 3432
 --media, 3432, 3412, 3443, 3446
 --music and minstrelsy, 2957-70
 --pageantry, 14th cent., 3062-77
 --peasant life and revolts, 3078-3102, 3443
 --plague in, 3103-15
 --political system, 2836
 --influences which destroyed, 3413
 --popular movements, 3079-3102
 --priesthood, ignorance in, 3021
 --punishments, 3154
 --religion, influence of, 387, 2887, 3311, 3116
 --Rome, 6th-12th cents., 2766-78
 --school and university lit., 3444
 --serfdom in, 2968-73
 --sick, cure of, 3115
 --16th cent. lit., 3440-56; *see also* Tudor
 --social organization, 3102, 3427
 --society founded on Church, 3342
 --sports and games, 3445, 3150
 --sunder, 3426, 3436
 --strikes in, 2923
 --table manners, 3432, 3442
 --13th cent. lit., 3413-28
 --thought, 3010-28
 --travelling, 3448, 3452-3
 --troubadours, 2963-67
 --unity, desire for, 3021, 3026
 --usury ideas, 3025
 --walled towns, 3445
 --warfare, plate f.p. 2926, 2911-50
 --women, 380, 381, 2925, 3088, 3445
See also Carolingian; Gothic Architecture; Holy Roman Empire; Moravians; Monasticism; Normans; Reformation; Renaissance
- Middle Class**, in British politics, 392
 --in Egypt, 490, 547
 --in England, 18th cent., 4211, 4250
 --in 15th cent., 3434-35
 --in Greece, 1113
 --growth of, 4125-42
 --in Rome, 1716, 2230
- Middle Kingdom**, *see* Egypt
- Middle Life**, era of, 108
- Middle Mark**, Germany, 2736
- Middlemore**, Humphrey, Carolinian, prisoner, 3357
- Middlesex Hospital**, 6016
- Midan**, beehive tomb at, 783
- Midlhurst**, samarium, 5038
- Midianites**, 813, 815
- Midsummer Day**, at Stonehenge, 628
- Miereveld**, M. van, port. Frederick of Bohemia, 3591
 --Oxenstierna, 3596
- Mierevelt, J. van**, port. William the Silent, 3476
- Mi Fel**, Chinese painter, 2502
- Mignard, N.**, Julie d'Angennes, 3993
 --Aime de Grignon, 3993
 --Louis XIV, 3739
 --Louise de Querouaille plate, f.p. 3983
 --Lorraine, 3743
 --Aime de Maitenon, 3996
 --Mazaria, 3598
 --Mollère, 3860

- Migration, climatic changes and, 317-438
 —in early Europe, 2212
 —habital routes, 439
 —racial, 232, 438
Miguel, son of Kapranzine, 3402
Miguel of Portugal, reactionary, 4262
 — — seizes throne, 4269
Mikado, 2980, 2991
Miklagard, name for Constantinople, 2524
Milon, Bonaparte enters, 4093
 —cathedral, 3210
 —commune of, 2753
 —Frederick I and, 2737, 2760-61
 —French possession, 3309
 —an imperial capital, 2124, 2231
 —Last Supper of da Vinci, 3232
 —in Middle Ages, 2759, 3009
 —plague in, 3112, 3115
 —Porta Romana, 2761
 —Venetian rivalry, 3138
Milon Decrees, 4101
Milan, Edict of, 2180, 2319
Milazzo, Garibaldi at, 4378
Mile End, London, and Peasants' Revolt, 3100-01
Milestone, Roman, 2216
Miletus, 1543
 —Alexander the Great and, 1134-35
 —power broken, 1001
 —revolt against Persia, 1095
Military Orders, founded, 2056, 2077
 — — medieval fall, 3005
Milk, cow's, first used by man, 340
 —in Homeric times, 818
Milk Way, 65, 5009
Mill, John Stuart, 5134
 — — and human industries, 4482
 — — on liberty, 4333
 — — and women's rights, 393
Millais, Sir J. E., Carlyle, 4438
Miller, John, philosophy, 4001
Millenary petition, 3718
Millennium, philosophy, 5090
Miller, D. H., covenant of League of Nations, 4619
Miller, Hugh, geologist, 93
Millerton, A., at San Remo, 4887
Millington, at Niagara, 4737
Milestone Grit, 102
Miller, Viscount, in Africa, 4021
 — — signs peace treaty, 4875
Milo, Roman tribune, 1781-82
Miltiades, in Chersonese, 1001-03, 1006-08, 1543
Milton, John, 3240, 3251, 3308, 3710
 — — political writings, 3701
 — — on Puritans, 3709
 — — Vergil's influence, 2245
Min, statues from Coptos, 500
Minamoto, family, Japan, 2989-91
Minck, Foster, on 30 Years' War, 3621, 3625
 — — or Gustavus Adolphus, 3630
Mind, Anaxagoras on, 1453
 —Greek conception, 1452
Minden, battle of, 3901
Mine : see Coal Mines, and individual metals
Mines (at sea), perils, 4893, 4894
 —(in warfare), crater at Loos, 4806
Miner, Egyptian gold, 359
Minerals, accessible to man, 110
Minors' Union, history, 1076
Minerva, patron of Rome, 1745, 1746
 —temple at Lambaesis, 1932
 —worship in Rome, 1751
 See also Athena
Ming Dynasty, 3505-25
 —Japanese menace, 3482
 —literature, 3510
 —overthrow, 3604, 4647
 —porcelain and pottery, plates f.p.p. 3518-19
Miniature painting, English examples, 3471, 3721, 3759
 —French, 4042, 4099
 —Greek, geometric, 996
 —Scottish, 3749
Minin, Kuzma, Russian patriot, 3928
Minning : see Coal Mines, etc.
 —Roman system, 1995
 —women in coal mines, 885
Minnesinger, 2067
Minocan Culture (B.M. I.—M.M. III), 595-609, (Late Minocan), 754-771
 —absorbed by Mycenae, 856
 —architecture, influence on Mycenaean, 840
 —commerce, 1539
 —in Cyprus, 1013
 —decline and decadence, 790, 1032
 —distribution, 673
 —Egyptian influences and debt, 1012
 —Greek, slight influence on, 1033-34
 —periods of, 595
 —tribes, origin, 1011
 —religion, 1365
 See also Aegean Culture ; Cnossus ; Crete ; Mycnae
Minorco, Britain acquires, 3760, 3903
 —Byng's failure, 3898, 3899
 —Spain regains, 3915
 —salvot, 613
 —tomb (maus), 613
Minos, king of Crete, 903, 1539
 —palace, 760, 835
 —historical strata, 26, 27
 —piracy suppressed, 1540
 —sex power, 609
 —throne of, 762
 —as tyrant, 535
Minotaur, legend, 599
Minstel, Egyptian model, 569
 —Norman, 2701
Minstreis' Gallery, Exeter Cathedral, 2968
Minstrelsy, and music, 2957-2970
Minucius Felix, writings, 1893, 2319
Minyan Culture, origin, 772
 — — wars, 603, 617
Miocene Period, 44, plate f.p. 96, 132, 180, 767
 — — anthropoids of, 162
 — — fauna of, 133-5
Mirobeau, Comte de, 4165-66, 4107-70
 — — death, 4083
 — — and Lafayette, 4162
 — — leader of Third Estate, 4079
 — — and Louis XVI, 4082
 — — on the Revolution, 3612
Mirabello, Gulf of, Gournia on, 759
Miranda, in Babylonia, 540
 — — medieval, 3450
Miracles, Byzantines and, 2031
 —early beliefs, 2358
 —Rome on, 1038
Miranda, in Venezuela, 4322
Mirandola, Pico della, 3225
Miriam, Lady, Akbar's wife, 3760
Mirror, Celtic, plate f.p. 1529
 —early use in America, 36
 —Etruscan, 1560
 —Greek, 1546
 —Roman, 2007
 —Venetian, 3239
Misthene, and Gordian III, 2114
Missaglia family, armorers, 2041
Missal, illumination, 2062
Missatica, Frankish divisions, 2431
Missi Dominici, 2431
 — — and feudalism, 2064
Missionaries, in China, Manchou, 4052, 4653
 — — under Tzu Hsi, 4663
 —Byzantine, 2637, 2642
 —Irish, 2677
Mississippi Constitution, 4404
Mississippi Valley, 2571-72
Missolonghi, Byron at, 4202
Missouri Compromise, 4278
Mrs. Perkins's Ball, title page, 4643
Monnal, Assyria conquers, 733
 —Egypt, relations with, 663-64
 —Hannibal conquered by, 731
 —Hittites and, 656, 667
 —kingdom of, 434, 593, 728-29
 —language, 807
 —Mesopotamia and, 657
 —status of, 799
 —Thothmes III and, 662
 —Thothmes IV and, 664
Mita of Mushki, Phrygian king, 883, 886
Mithradates I, Parthian king, 1090
Mithradates II, Parthian king, 2309
Mithradates VI, k. of Pontus, 1771, 1774, 1776-77
 —kingdom formed, 1410
Mithradates VI—cont.
 —Roman wars, 1774-77
 —Sertorius and, 1775
 —Troy occupied, 860
Mithraism, influence on Christianity, 1506, 2090-91
 —Roman Britain, 2143, 2147
 —spread of, 2308
Mithras, Persian god, 2090
 —bull, 2090-91, 2093
 —Roman worship, 2080, 2093, 2143, 2147
Mitra, Onxaca, 2582, 2583
Mitra, Mitanni worship, 503
 —Varuna and, 655
Mitylene, Athens and, 1241
Mnaisira, temple, 614, 616
Mnemonics, early systems, 1063
Mnesicles, the Propylaea, 1290
Mosabites, foes of Israel, 813, 826
 —Omri conquers, 820
Mosabite Stone, 1079
Moawiya, Khalid, 2348-50
Moemigo (dodge), portrait, 3015
Moemigo, 17th cent. Venetian, 3602
Mochlos, burial jar from, 609
 —flowers from tomb, 396
 —pottery, plate f.p. 609
Mocrotherium, and elephant, 137
Mohabats, teachings on Christ, 2331
Modena, origin of, 1711
Modern Architecture, 3631-35
 —Greek influence, 1534, 1558-59
Modern Civilization, Byzantine influence, 2034, 2042
 —Greek influence, 1554-60
 —Roman influence, 2237-2232
 —law and, 2158, 2164
Modernism, in literature and art, 3013-37
 —in religion, 4864
Modyford, Sir T., governor of Jamaica, 3812
Moengal, Irish monk, 2687-88
Moers, lake, reservoir, 423, 546
Moesta, Gothic invasion, 2116
 —and Roman Empire, 1843
Moesians, Mysians akin to, 861
Mogila, Peter, and Kiev college, 3032
Mogul, The Great, court of, 3573
Mogul Empire, 3763-99
 —disintegration, 3889
 —foundation, 3167, 3170
 —use of term, 409
Mohars, battle of (1320), 8159, 3100
 —2nd battle of, 3753
Mohammed, Sultan of Delhi, 2002
Mohammed I, Ottoman sultan, 3123
Mohammed II, Ottoman sultan, 3124
 —at Belgrade, 3156
 —conquests, 3139-40
 —figure on horseback, 3756
Mohammed III, Ottoman sultan, 3602
Mohammed V, Ottoman sultan, 4381, 4582
Mohammed Bahadur Shah : see Bahadur Shah
Mohammed Ghori : see Shahab ud-Din
Mohammed Khilji, conquests, 2750
Mohammed of Khiva, defeat, 2817
Mohammed Shah, 3795, 3799
Mohammedanism : see Mahomedanism
Mohammed bin Sam : see Shahab ud-Din
Mohammed bin Tuglak, 3172-73
 — — fictitious currency, 3174
Mohenjo-Daro, Indo-Sumerian culture, 429, 430-57
 —inscriptions, 1065
Mohin Bibi, portrait, 3780
Moh Ti, Chinese philosopher, 1227
Mohur, Indian coin, 3791, 3794
Moir, J. Reid, colitis of, 153, 242
Moirs, E. of : see Hastings, Marquess
Moliz, Fatinid Khalif, 2540
Mokanua, insurrection, 2412
Molasses Act, economic effect, 4021
Moliere, common sense, 4042
 —as dramatist, 3860, 3861
 —Les Precieuses Ridicules, 3992
Molinos, Miguel de, quietist, 3803
Mollwitz, battle of, 3892
Molke, Helmuth von, 4370, 4384
Moluccas, Drake in, 3549
Mombasa, gate fortress, 3398
Mommaen, Theodor, portrait, 17
 —on Stoicism, 1906

Monarchians, teachings, 2331
Monarchy, 1667-68
 —Charlemagne's ideas, 2420, 2443
 —in France, 3008, 4113
 —medieval ideas, 3342
 —universal, Dante on, 3342
See also King
Monasterboice, Ireland, 2674
Monasteries, Dissolution of, in England, 2283-86, 3358, 3487-98
 —in Germany, 2285
Monasteries, buildings of, 2277, 3421
 —church of, 2440
 —cloisters, 2279
 —daily duties in, 3419
 —lavatorium, 2279
 —meals, 3420
 —monks in church, 3119
 —Mount Athos, 2627
 —Scriptoria, 2281, 2282
Monasticism, 2275-86
 —art and, 2281, 2138
 —blood-letting in, 3421
 —in Byzantium, 2026, 2042
 —civilization aided by, 2232, 2071
 —decay of, 2283, 3004
 —in early Church, 2275, 2334
 —Eastern, 2275, 2286, 2627
 —in England, 2277-85, 2407-08, 2733, 3493
 —evils of, 2627
 —ideals, 2270-73, 2650
 —Irish, 2076-78, 2682
 —and learning, 2282, 2433, 2403
 —Sir T. More on, 3498
 —in Normandy, 2011
 —women and, 351
 —worship, 3410
Monastic Orders, habits, 2330
Monastir, captured (1916), 4700
 —Serbia loses, 4585
Monboddio, Lord, 4075
Monet, Charles, revolutionary drawings and engravings, 3911, 4032, 4091, 4134, 4140
Monet, Claude, river scene, 5023
Money, in Greece, 1519-50
 —power of, 5001
See also Currency
Money changing, in medieval times, 2807, 2902, 2903
 —need for, Greek, 1550
Money lending, in Rome, 2134
Monferrato, Marquesses of, in Piedmont, 2760
Mongolia, as evolutionary centre, 131, 441-42
 —Japan in, 4423
Mongolians, racial characteristics, 228, 236, 231, 303, 2384
 —alphabet of, 1002
 —in America, 315
 —in Europe, 2206
Mongols, 2847-68
 —in Asia, 2128, 2818
 —Bagdad besieged, 2821, 2824
 —China conquered and lost, 2501, 2090, 3505
 —commerce protected, 2014
 —conquests of, 2014
 —empire of, 390, 2847-60
 —destroyed, 2853, 2091
 —map, 2819
 —Europe invaded, 792, 2203, 2817
 —history, early, 2128, 2847
 —India invaded, 452, 3172, 3705
 —invasions, 2817-19, 3172
 —under Jenghiz Khan, 2750
 —under Kublai Khan, 2833, 2847-60
 —Maliomedan literature destroyed, 2755
 —and Mamelukes, 2820-22, 2091
 —Turkistan invaded, 347
Monica, mother of S. Augustine, 2324-25
Monkey, genealogical tree, 135
 —gibbon compared with, 180
 —in Miocene times, 134, 101, 102
 —pre-glacial, tool-using, 110
 —tribute to Pharaoh, 679
See also Anthropoids; Ape; Chimpanzee; Gorilla
Monk: see Monasticism
Monmouth, James, d. of, 3745
 —portrait after death, 3740

Monoclonius, fossil eggs, 123, 120, 130
 —skeleton and reconstruction, 122
Monogamy, among N. European tribes, 376
 —Mesopotamia, 540
Monolith, Maya, 2574, 2575, 2576, 2578-79, 2581, 2596
See also Megalithic culture; Menhir; Obelisk
Monometape, empire, 3396, 3300, 3401
 —organization, 3307
Monophysitism, history, 2237, 2339-42
 —sanctuary, 2341
Monopolies, in England, 3601
 —in France, 3852, 4120
 —limit to size of, 4090
 —critique on, 3664
 —in U.S.A., 4515, 4090
See also Patents; Trusts
Monothelism, early, 2300
 —Mahomet's, 2373
 —taught by Akhnaton, 752
Monothelites, banned by Council of Constantinople, 2353
 —Constantius II compromise, 2352
 —doctrines, 2343
Monoxylons, Russian dug-outs, 2477, 2039
Monreale, cathedral, 2690, 2705
 —coronation mosaic, 2686
Monroe Doctrine, 4277, 4324
Monroe, James, and Lafayette, 4161
 —president, U.S.A., 4277
Mons, British retreat from, 4746
 —Canadian Scottish in, 4783, 4784
Monson, areas of incidence, 336, 338
 —periodicity discovered, 2169
 —produce of, 339, 341
Mont, war god of Hieronthis, 705
Montagu, Elizabeth, 4270
Montagu, Lady Mary Wortley, 4246, 4247
 —smallpox inoculation, 3117
Montagu-Chelmsford Report, 4648
Montagne, 3335, 3338
Montana, admitted to Union, 4507
 —copper in, 4504
Montanists, persecution of, 2180
Montanus, 16th cent. scientist, 3338
Montapeto, battle of, 2825
Montaudon, Monk of Troubadour, 2905
Montbars the Exterminator, 3811
Montcalm, Marquis de, in America, 3890, 3901
Mont Cenis, Frederick I crosses, 2737
Montdidier, French troops at, 4778
Monteassino, Benedictine abbey, 2003, 2270
Montecorvino, John of, 3508
Montenouli, Count, defeats Turks, 410, 3751
Montefelro family, Urbino, 3218, 3219
Montemhet, Egyptian prince, 1022
Montenotte, Napoleon's victory at, 4093
Montespan, cayo, model of, bear 261, 252
Montespan, Marquise de, 3904, 3995
Montesquieu, on climatic influences, 387
 —on the English constitution, 3673
 —religion, 4203
 —political science, 4120
 —portrait, 4059
 —Spirit of Laws, 4059
Monteverdi, music dramas, 4310
Montezuma, Aztec: see Motecuzoma
Montercaut, ancient graves, 1621
Montfort, Isabel de, 2010
Montfort, Simon de (1209), crusade against Albigenses, 2300
Montfort, Simon de, earl of Leicester, baronial leader, 2828, 2830
 —summons parliament, 4429
Montgomery, Comte de, kills Henry II of France, 2095
Montholen, Count, with Napoleon in exile, 4198
Monfremency, Constable of France, 3403
Montmorin, Mirabeau and, 4107
Montpensier, Duchess of, at battle of S. Antoine, 3599
Montreal, in 1800, 4605
 —riots in (1848), 4004
Monumental Brasses, 2651, 2908, 2910, 2928, 2920, 2933

Moon, Aristarchus of Samos' theories, 2003, 2004
 —Egyptian identification with Hathor, 361
 —Hipparchus' theory, 2081
 —relationship of caw and, 300-362
 —telescopic view, 79
 —tides, and, 67, 70, 76
Moon worship, British survivals, 1626
 —in Carthage, 1026
 —by Minotaur, 707
 —Sumerian, 510, 527-30, 537-38, 583
Moore, George, novelist, 5017, 5018
Moore, Sir John, 4193
Moorish Architecture, in Africa, 3268, 3271-72
 —Mudéjar contrasted with, 3279
 —in Spain, 3268-81
 —vaulting, 3273, 3275
See also Mahomedan Architecture; Saracenic
Moorish Art, 2539, 3264, 3282-83, 3286-89
 —table of, 3267
See also Saracenic
Moors, in Africa, 3400
 —as pirates, 3409, 3805
 —pottery, 3264, 3265
 —in Spain, 3264-66
 —historical table, 3267
 —Sudanese civilization destroyed, 3408
Morality, of the Elizabethans, 3550
 —in 18th century-England, 4202, 4221
 —Germany, 3061
 —in pre-Revolution France, 3850, 4122
 —women and, 360
Morals, under Directory, 4140
 —of gods, Heroic Age, 850
 —Greek idea, 1101
 —philosophy and, 4125
 —post-war standard, 4804
Morat, site of Iako village, 266
Moravia, attacked by Frederick the Great, 3892
 —Protestants persecuted, 3627
 —Slavs converted, 2492
Moravian Brethren, Wesley and, 4205
More, Hannah, 4126, 4217
 —social work, 4401
More, Sir Thomas, 3336
 —on common ownership, 1979
 —humanism, 3330
 —idealism, 3000
 —scholarship, 3333
 —on Second Advent, 3018
 —on sheep-farming, 3437
 —on the Vulgate, 3330
Morea, reconquered by Turkey, 3880
Moreau, French general, 4093
 —at Hohenlinden, 4096
Morella la Vella, cave-painting, 262
Morely, and communism, 4079
Morocho, Garcia, dominated Ecuador, 4332
Morston Old Hall, Cheshire, 3491
Morgagni, founder of pathology, 5047
Morgan, Sir Henry, phate, 3812-13
 —Rembrandt's portrait, 3814
 —ships off Maracallo, 3800
Morgan, Edward, in Jamaica, 3812
Morgan, J. Pierpont, portrait, 4714
Morgarten, battle of, 3000, 3089
Morisco, 3207, 3271, 3285
See also Moors
Morland, Sir T., in Disseldorf (1021), 4912
Morland, George, the Ellopement, 4249
 —Visit to the Boarding School, 4245
Mormons, settlement of Utah, 4605
Mornington, E. of: see Wellesley, Marquess
Moro, Sir Antonio, Duke of Alva, 3468
 —Mary of Guise, 3461
 —Philip II, 3482
Morocco, 3393
 —Abd el-Krim's rebellion, 4806, 4807
 —Algeiras Conference, 4577
Morone, Cardinal, suspected of Lutheranism, 3247
Moropus, skeleton and reconstruction, 135
Morsial, Vincenzo, 3753-54
 —portrait by Titoretto, 3046
Morozov, Russian foreign minister, 3031
Mordil Act, U.S.A., 4490

Morris, Lord, premier of Newfoundland at Imperial Conference, 4625
Morris, William, Hill of Venus, 2751
 —medievalism, 4549
 —printing, 3198
Morrison, Robert, missionary, 4653
Morse, S. F. B., and electric telegraph, 4698
Mortal, origin of term, 358
Mortgage, in Greece, 1551
Mort Homme, Verdun, 4763
Mosaic, Aztec, plate *f.p.* 3370
 —Byzantine, 2231, 2261, 2266, plates *f.p.p.* 2302-03
 —column from Tell el-Obeid, 521
 —Roman: *see* Roman Art
 —Sicilian, 2696-97
 —Zapotec, 2581
Mosaic Law, 472
 —standard of Jewish nation, 1950
Moschoi: *see* Mushki
Moscow, 3921, 3922-3
 —Bolshevik revolution and, 4951
 —burning of, 4105, 4195
 —capital of Russia (1018), 4958
 —cathedral of S. Basil, 3925
 —Charles XII marches on, 3762
 —Napoleon's troops in, 1195
 —Poles take, 3927
 —retreat from, 4105, 4195
 —rioting in (1905), 4941
 —street scene, Catherine II, 3941
Moscow, Principality of, 3917
Moselle, Roman barges on, 2133
Möser, Jostus, German publisher, 3949
Moses, connected with Midianites, 815
 —founder of Jewish nation, 812
 —leader of Exodus, 2307
 —Mahomet's model, 2307
 —by Michelangelo, 3229, 3231
 —position in Judaism, 655
 —in Psalm of S. Paul, 2822
 —religion founded, 821
See also Mosaic Law
Moskva, river, at Moscow, 3922-3
Moslem: *see* Mahomedan
Moslemah, brother of Khalif Suleiman, 2957-58, 2958
Mosque, as university, 2533, 2534
See also Moorish; Saracenic
Motellaria, Roman comedy, 1759
Moteazuma I (Montezuma), Aztec emperor, 3301
Moteazuma II (Montezuma), 3304-05, 3305
 —treasure sent to Cortés, 3370, plate *f.p.* 3370
 —wealth of, 3371, 3372-73
Mothanna, Beduin chief, 2347
Mother goddess, cult in Britain, 2147
 ——Minocan, 608, 708
Motherhood, early views of, 377
 —in Egypt, 578
Mother of God, title of Virgin Mary, controversies, 2337-40
See also Mary, Virgin
Motion, in Greek philosophy, 1452, 1463
Motor-boat, coastal, in Great War, 4860
Motor Car, U.S. industry, 4785, 4786
Motya, Carthaginian possession, 1031
 —ruins of walls, 1632
Mounier, tennis-court oath, 4158
Mountain, formation, 84-5, 100-10
Mountain of God, the Ziggurat, Ur, 528
Mountain of the West, Egypt, 649
Mountain, The, Greclan party, 1119
Mountain, The: *see* Jacobins
Mouted Infantry, English, 2048
Moustachs, in ancient times, 1026
 —tattooed, Ainu women, 2380
Mousterian Period, bear cult, 180, 192
 —in cave-dwellings, 144, 189, 246, 280, plate *f.p.* 241
 —plate, *f.p.* 220
 —fire-making, 246, 286
 —flint flakes, 246, 247
 —points and disks, 245, 246
 —tools, 27, 87, 246
Mozarabes, or Most'arib, 3267
Mozarabic, architecture, 2678
 —Christian subjects of Moors, 2659
Mozart, W. A., classicism, 4316
 —portrait, 3957
Mtasa, king of Uganda, 4634
Muolanus, Roman officer, 1860

Mudéjar Architecture, decorations, 3283
 —forums and styles, 3271, 3276-77
 —Moorish contrasted with, 3279
 —starting point, 3275
Mudéjares, Moors under Christian rule, table, 3287
Mug, gold, from Mycenae, 781
Muhammad, Prince (1099), 2794
Muhammad, son of Malik Shah, 2792
Mohammad ibn Ahmed: *see* Ibn Juhair
Mühlberg, battle of, 3316
Mukden, Kuropatkin at, 4567
 —Manchu tombs, 4648
Mul, of Wessex, death, 2441
 —tomb at Canterbury, 2463
Mull, volcanoes in, 110
Müller, August, on Selinka, 2781
Müller, commander of Emden, 4810
Multan, Alex. the Gr. at, 1409, 1416
Multiple shops, organization, 5004
Multiplication, in Egypt, 408, 562
Mulvian Bridge, battle of, 2126
Mumina Khatun, mausoleum of, 2785
Mummification, in Australia, 200
 —in Egypt, 502, 703, 2001
 —in Peru, 200
 —ritual of resurrection, 363
Mummius, Lucius, Cornith and, 1652, 1690
Mummii, in Assyrian story, 979
Mummy, casket, 1934
 —corks, 705
 —Egyptian, 353, 355
 —in Peru, 3386, 3388
 —Roman portraits, 1934
Muralla, Roman remains from, 2146
Maztas, Mahal, portrait, 3776
 —and Taj Mahal, 3775, 3776, 3788
Mun, Thomas, on foreign trade, 4020
Mundella, A. J., politician, 4076
Manich, and Gustavus Adolphus, 3596, 3640
Munidia, Roman idea, 1603
Muniticos, British factory, 4801
 —women workers, 360
Munnich, Marshal, Russian, 3936
Munster, and Peace of Westphalia, 3633
Munster, Treaty of, 3673
Murad I (Amurath), sultan, 2904
 —victory at Maritza, 3164
Murad II (Amurath), sultan, 3123
 —victory at Varna, 3165
Murad IV, sultan, captures Bagdad, 2823
Murad, viceroy of Gujarat, 3775
Muraco, glass industry, 3035, 3038
Murat, Joachim, king of Naples, 412, 4080, 4257
Murchison, Sir R. S., and Welsh rocks, 90, 91
Murcia, conquered from Saracens, 2827
Murder, in Saxon England, 2465
Murdock, William, steam locomotive, 4355
Murgesa, Roman commander, 1775
Muriso, copper mines, 3281
Murray, Prof. Gilbert, 1566
 —on the Illad and Odyssoy, 13
 —translations of Euripides, 1353
Murray, Matthew, and planing machine, 4358
Mursa, battle of, 2194
Mursil I, Hittite king, accession, 900
 —at Alppo, 730
 —compared with Julius Caesar, 738
Mursil III, Hittite king, 725
 —at sanctuary of Arinna, 727
 —succeeded Subbittuluma, 669, 734
Musa, Saracen leader, 2350, 2350-57
Muscovy, English discovery, 3481
 —subject to Tatars, 3917
Muses, in Greek religion, 1378
Museum, Greek meaning, 2167
Mushki, identified with Meshcho, 707
 —Phrygian power, 677, 882
Mushkinu, middle class, Babylonia, 574
Mushkinum, Mesopotamian freemen, 524
Music, ancient and medieval, 2957-70,
 —Assyrian, 330, 382
 —in Babylonia, 539, 585
 —in colonial America, 4018
 —Egyptian, ancient, 553, plate *f.p.* 553, 707, 2957

Music—cont.
 —European development, 1537
 —German, in the illumination, 3957
 —Greek, 1285, 1557, 2958
 —Hebrew, 1557
 —in Mahomedan Spain, 3288
 —prehistoric, 291
 —Pythagorean theories, 1472, 1473
 —rumanism in, 4315
Musket, of Civil War, 3612, 3728
Muskogean, tribe, 2372
Musk Or, in England, 110
Musonius Rufus, teaching of, 1906-7
Musri, tribute to Shalmaneser, 889
Mussel, Alfred de, portrait, 4312
Mussolini, Benito, dictatorship, 5079, 5080
 —premier, 1890, 4305, 4800
Mustard Gas, casualties, 4794
 —German use of, 1793
Mut, suckling Serf I, 617
 —Temple at Kamak, 705
Mutallis, Hittite king, 669-70
 —succeeded Mursil II, 736
Mutanebbi, poet, 2535
Mutassem, Khalif, 2425
Mutawakki, Khalif, 2425
Mutemaya, wife of Phtholmes IV, 664
Mutilation, among aborigines, 210
 —among cave-dwellers, 205
 —Byzantium, 2638-31
 —as punishment, 3455
 —purposes of, 297
Mutina, siege by Mark Antony, 1790
Mutsuhito, emperor of Japan, 4395
 —Nogi and death of, 4560
Muwalladun, or Muladies, 3267
Mycale, battle of, 1103, 1392
Myoenae, 773-779, 782-85, 840-42
 —Achaean chiefs at, 789
 —destruction, 1032
 —dynasty from Greek mainland, 868
 —Homer's references, 835
 —intercourse with Troy, 865
 —Lion Gate, 770
 —Mynian culture in, 772
 —appliance Cossus, 799
See also Thyrus; Troy
Myoenae, Culture, plates 754 and 766, 773-790
 ——Achaean and, 789, 985
 ——architecture derived from Crete, 840
 ——Britain, influence in, 635
 ——Cretan art survived in, 836
 ——destruction, 1032, 1034
 ——Greece, influence on, 1034
See also Aegean Culture; Crete; Greek
Mycehnus: *see* Menkaura
Myron, Discobolus of, 1320
Myrlao, akin to Mocius, 801
 —Hittite allies, 794
Mysors, state, 4444, 4470
 —war in, 4447
Mystic, religious, 2084, 2086
Mystery ship, in Great War, 4655
Mystic, definition, 2026
Mysticism, of Aristotle, 1464
 —medieval, 3027-28, 3067
 —of Plato, 1459
 —in Taoism, 1221
Mythology, Greek, 1303-80
 —Islamic, 2374
 —Roman, 1731-53
 —Sumerian, Egyptian and Aryan, 637-56
 —women in, 372
See also Gods

N

Nabis, tyrant of Sparta, 1678-79, 1689
Nabooassar, king of Babylonia, 884
Nabodius, k. of Babylonia, 915, 1083
 —conquered by Cyrus, 1086
 —restored ziggurat at Ur, plate *f.p.* 523
Nabopolassar, attacks Assyria, 832
Naboth, Ahab and his vineyard, 819
 —Jonah and murder of, 825
Nabu, or Nebo, god of learning, 584, 972
 —temple of, Borsippa, 669
 —visits Marduk, 649
Naccaras, Tatar kettle-drums, 2359

- Nadab, son of Jeroboam, 814
 Naddod, Viking, in Iceland, 2525
 Nadir Shah, 3795, 3796
 —owned Koh-i-noor, 3775
 —sacks Delhi, 3880
 —succeeded by Ahmad Shah, 3797
 Naevius, Latin poet, 1758, 1762, 1881
 Nafels, battle of (1387), 3000, 3000
 Naga-ed-Deir, prehistoric tomb, 491
 —Reisner's excavations at, 358
 Naga Hills, signalling drum, 204
 Nagas, Buddhist preaching to, 1265
 Nagasena, converts Menander, 1191
 Naharin, absorbed by Hittites, 667
 —Egyptian campaigns in, 602, 604, 670
 Nahual, primitive American tribes, 2580
 —religion, 2580, 2591, 3361, 3367
 Nahum, on fall of Nineveh, 831
 Nairor, James, 17th cent. Quaker, 3730
 Nairi, Assyrian fortification in, 878
 Naisius, Roman victory, 218
 Nakhtivan, Seljuk queen's tomb at, 2785
 Nakht, vizier of Akhnaton, House, 681
 Naksh-i-Rustam, rock carvings, 2117, 2316
 —rock tomb of Darius, 1143
 Name, and immortality in Egypt, 650
 Namur, fall (1914), 4746
 Nana, Moll-shalpak II before, 675
 —see also Nannar
 Nana Sahib, rajah of Bithur, 4463
 Nancy, Charles the Rash defeated, 3144
 Naaking, captured by Kuomintang, 4903
 —captured by Yung Lo, 3513
 —Ming tomb near, 3511
 Nanjing, Treaty of, 4270
 Nankow Pass, Great Wall at, 443, 1588
 Nanaar, Sumerian moon god, 527, 538
 —Ur-Bugur appearing before, 537, 583
 —Ur shrine, 510, 528, 529, 530
 Nansen, Dr. Fridtjof, and Russian relief, 4971
 Nantes, drownings at, 4117
 Nantes, Edict of, issued by Henry IV, 8170
 —national danger of, 3611
 —revolution, 3744, 3870, 3871
 —economic results, 361, 3848
 Nanteuil, Robert, Mme. de Sévigné, 3361
 —turbane, 3369
 Napata, Nubian kingdom, 682
 —Cambyse's expedition against, 1088
 —prince hung on walls, 664
 —temple of Amen, 1010
 Naphtali, territory of tribe, 813
 Naples, ally of Rome (Neapolis), 1004
 —duchy of, 2692, 2695
 —Roman rule, 2695
 —Roman roads, 2694
 Naples, Kingdom of, 2818, 2820
 —annexed to Aragon, 3298
 —entered by Garibaldi, 4378
 —French claim to, 3609
 —invaded by French (1806), 4191
 —Jesuits expelled from, 3689
 —Joseph Bonaparte, king, 4102, 4103
 —Murat king, map, 4080, 4103
 Napoleon I, 4091-4109, 4178-99
 —Alexander the Gr., influence of, 1423, 1480, 1447
 —at Arcola, 4181
 —Britain his chief enemy, 411
 —protests to, 4187
 —chosen by Sieyès, 4150
 —compared with Louis XIV, 3872
 —Confidential client kingdoms, 412
 —coronation, plate f.p. 4091
 —Deed of Abdication, 4197
 —defeating memoirs, 4199
 —at Elba, plate f.p. 4091
 —as Emperor, 4099
 —empire of, plate f.p. 402, maps, 412, 4080
 —as First Consul, medal, 4180
 —French currency under, 4188
 —and Fulton's steamboat, 4354
 —Gillray satire, 4188
 —industry encouragement, 4136
 —and Italian nationality, 3615
 —Lafayette and, 4163, 4164
 —legend in the making, 4292
 —morsals of court, 4149
 Napoleon I—cont.
 —and the nobility, 4280
 —portraits, 412, 4093, 4181, 4186, 4199
 —power and pride, 4449
 —Russian campaign, 1442, 4105, 4195
 —usual value put on lives, 1431
 —and S. America, 4322
 —Spanish opposition to, 3613
 —Tilsit, 4190
 —and unification of Germany, 3614
 —visit to factory, 4152
 —and world empire, 411, 412
 Napoleon III, 4372, 4383
 —becomes French president, 4365, 4371
 —and cabinet, 4384
 —flies to England, 4385
 —and Italian nationality, 3615
 —letter of surrender, 4385
 —and Maximilian of Mexico, 4387, 4387
 —as special constable, 4430
 Napoleon, Eugène Louis, Prince Imperial, 4556
 Nar, river, Roman bridge, 2038, 2039
 Nara, ancient capital of Japan, 2391
 Naram-Sin, king of Mesopotamia, 420, 431, 459, 521
 Narbonne, Roman province, 1782
 Narbonne, French minister for war, 4163
 Narborough, Sir John, expedition against pirates, 3806
 Narcissus, Roman freedman, power of, 1856, 2001
 Narmer, portrait head, 40
 —possibly Menes, 423, 559
 —slate palette of, 420, 495, 497, 500, 558
 Narni, Erasmo de : see Gattamelata
 Narses, chamberlain of Justinian, victories, 2214, 2267
 Narva, battle of, 3762
 Nasca, (Proto-Nasca) Culture, 2580, 2592, 2597
 Nash, Beau, king of Bath, 4254
 Nash, John, Artists' Rifles at Marne, plate f.p. 4772
 —wood engraving, 5041
 Nash, Thomas, on lay critics, 3559
 Nashafays, worshipped by Mitaani, 563
 Nasica, Scipio, and Tiberius Gracchus, 1767
 Nasmyth, James, anti-trade-unionsist, 4076
 —steam hammer, 4350, 4360
 Nassau (ship), at Jutland, 4852
 Nation, The, questionnaire on belief, 4565
 National African Co., 4020
 National Assembly, French Revolu., 4070
 —abolition of feudal rights, 4140
 —and church reform, 4135
 —and finance, 4187
 —forging the constitution, 4132
 —Lafayette vice-president, 4160
 —radical reform, 4131
 —refusal to dissolve, 4103
 —royalist caricature, 4085
 National Civic Federation, and employers' propaganda, 4518
 National Consolidated Trades Union, 4071, 4072
 National Debt, in 18th century, 4281
 —of France, repudiated by Directory, 4138
 National Guard, Lafayette in command, 4160-61
 —revolutionary, 4081
 Nationalisation, in Germany, 4901
 —trade unions and, 4682
 Nationalism, 300-08, 412, 3605-17
 —and despotism, 3611-15, 3617
 —English, Elizabethan age, 3553
 —European, Napoleonic era, 412
 —phases of, 304-8
 —medieval, 3024, 3411
 —Military Orders opposed, 3065
 —Renaissance, effect on, 3070
 —revolt against papacy, 3063
 —triumph, 3060, 3077
 —post-war, 5062
 —product of French Revolution, 4154
 —in South America, 316
 —spirit in 16th cent., 3440
 —and trade, 4480
 Nationality, in Canada, 4602
 —development of, 3691
 —in Heracle Age, 851
 —problems of, 5002
 National Petition, Chartists, 4136
 National Union of Working Classes, 4083
 National Volunteers (Ireland), intercepted by K.O.S.B., 4586
 Nations, battle of the : see Leipzig, battle of
 Native Question, in S. Africa, 4615
 Natural Law, and Roman law, 2160
 Natural Right, doctrine of, 3087
 Natural Selection, Darwin's theory, 1529
 —process at work, 305
 —see also Evolution
 Nature, apparent duality, 1452
 —Aristotle's views on, 1463
 —classical attitude towards, 4041
 —gods of, 640
 —Greek search for order in, 1467
 —man's power over, 5093
 —role in history, 791
 Nature-worship, Greek, 1367, 1371
 —in pre-Hittite Mesopotamia, 727
 —religious born of, 1128
 —tendency to degradation, 1026
 Naturism, evolved from animism, 221
 Naude, Gabele, on contemporary religion, 3620
 Naukratis, Greek colony and trade, 1003, 1014, 1541-42
 —pottery of, 1014, 1020, 1540, 1542
 Naukaka, pavilion, Lahore, 3784
 Nauiachus, Sextus Pompeius defeated, 1702
 Naupactus, Athenian settlement, 1231
 Naupactus, Congress of, 1877
 Nauplia, fortress and harbour, 773
 —Otto I entering, 4266
 Naurs, mandated, 4041
 Naus, Minoan tomb, 613
 Nausona, and domestic tasks, 848-19
 Neutilus, on Minoan vase, plate, 751
 Navarino, battle of, 4203, 4201
 Navarro, 2498, 2647
 —crown allied with French, 3009
 —passing from Spain, 3145
 —Spanish, annexed by Ferdinand, 3300
 Navarrete, battle of, 2060
 Navigation Act (1651), 3551
 —bid for English ascendancy, 411
 —Dutch smile on, 3731
 —modification and repeal, 4476
 Navy, British, and the Dominions, 4624
 —in 18th century, 4212
 —in Great War, 4754, 4831-60
 —medical reform, 6047
 —in Napoleonic Wars, 4093, 4095, 4097, 4100, 4101
 —Tudor, 3401, 3541, 3544-15
 —see also Battleship; Warship
 Navy, French, under Colbert, 3730, 3712, 3743
 Navy, German, in Great War, 4835-44
 —at Jutland, 4840-52
 —Wilhelm II's programme, 4571, 4600
 —see also Submarine
 Navy, Japanese, British instruction, 4417, 4418
 Navy, Roman, doctors in, 2210
 —Agrippa's reforms, 1840
 Navy, Russian, under Catherine the Great, 3940
 Navy, U.S.A., in Great War, 4857
 Naxos, Sicily, 460, 1035
 —and Delian Confederation, 1393
 —marble at, 697
 Nayan, Mongol warrior, 2859
 Nayler, James : see Nallor
 Nazir-i-Khusrav, writings, 2791
 Neanderthal Man, anatomical comparisons, 148, 159, 169, 194, 195
 —characteristics, 144, 177, 184
 —diagrammatic chart, 220, plate f.p. 226
 —discovery, 44
 —in Gallican cave, 457
 —implements, 245-7
 —reconstructions, 166, 167, plate f.p. 241
 Nearchois, navigation of, 1400, 1440-47, —maps, 405, 1423
 Near East : see Asia Minor; East, Near

- Nebhat** (Nephthys), with Osiris, 646
Nebu : see **Nabu**
Nebuchadrezzar I, war against Elamites, 567, 676
Nebuchadrezzar II, Babylon built, 947, 949
 — Ishlar gate, 951-953, 956-57
 — Kusr (citadel), 950, 958
 — processional way, 958
 — conquers Judah, 833
 — defeats Necho, 832, 1016
Nebulae, development and observations, 54-67, plate *f.p.* 56
 — mass and volume, 64, 5006
Nebular hypothesis, 52, 53, 56, 59
Necho, Pharaoh, 832-33, 889-90, 1088
 — Daphnae founded by, 1023
 — defeat at Carchemish, 832, 1016
Necker, Jacques, French minister, 3916, 4087, 4131
Necklace, Bronze Age, 919, plate 925
 — Celtic, plate *f.p.* 1521
 — Egyptian, Middle Kingdom and Empire, 551, 699
 — Graeco-Indian, 1501
 — Neolithic, 618
 — Paleolithic, 357
 — Phoenician, trade goods, 1610
 — Roman, 2013
 — Sumerian, plate *f.p.* 529, 541
 — Viking, 2522
Nedao, battle of the, Hun defeat, 2207
Neeloe, Solitaire, 247
Neerwinden, Dumouriez defeated, 4087
Nefor-ia, Egyptian scribe, 196
Nefertiti, Egyptian prophet, 566
Nefert, wife of Nefertiti, 476, 502
Nefertari, Queen, temple, 679
Nefertiti, Akhnaton's wife, 742, 750
 — head, 705, plate 753
Negative Confession, in ancient Egypt, 546, 651, 710
Negritos, African tribe, 3305
Negros, in Spanish America, 3540
 — in *Virginia*, 3548
 — in West Indies, 3550, 4694, 4638
 See also **Slavery**
Negro Problem, in U.S.A., 320, 4480-90, 4095
 — voting majority in south, 4492
Negrol, family of armourers, 2011, 2044
Nehavand, Sarracen victory at, 2348
Nehemiah, 1040-50
 — Jerusalem rebuilt, 1044
 — Philistines in time of, 790
Nehemiah, Book of, critical survey, 1044
Nehruvan, battle of, 2350
Nelson, James, hot blast, 4359
Neipperg, Count, and Marie Louise, 4196
Nekhebet, Egyptian vulture goddess, 559, 609
Nelson, Lord, 4091
 — death mask, 4101
 — at Trafalgar, 4100
Nomausus : see **Nines**
Nemesianus, Roman poet, 1898
Nennius, Welsh chronicler, 2417
Neolithic Period, 617-36
 — in America, 2573
 — arrow heads as amulets, 352
 — in Asia Minor, 590
 — boat, 291
 — Chinese pottery, 2385
 — in Crete, 594, 595
 — in Cyprus, 610
 — definition, 46, 143, 260, 271
 — in England, Grime's Graves, 274
 — Silbury Hill, 636
 — Stonehenge, 626-29
 — in Europe, map, 619
 — implements, 271-75
 — in Japan, 2384-89
 — Ainu figurines, 2389
 — lake villages, 206-8, 631
 — Mediterranean region, 612-16
 — in Rumania and Ukraine, 772
 — and Solutrean, 275
 See also **Flint**; **Palaeolithic Age**
Neo-Platonism, 1903, 2171
Nep Economics, 4970, 4990, 5076
Nephthys, with Osiris, 646
Nepos, Aulus Platorius, 1722
Nepos, Cornelius, 1800
Nepos, Julius, 2309, 2258
Neptune (god), 1752
Neptune (planet), formation of, 56
Nereids, statues, 1384
Nergal, Babylonian god, 581
Nero, consul, in Hannibalic War, 1661
Nero, emperor, 1854-57, 1856, 2000
 — Christians persecuted, 2181
 — coins, 29, 1492
 — musical contests of, 2025
 — Seneca and, 1856, 1890
Nerva, Roman emperor, 1661
Nervii, Gallic tribe, 1783
Nestorian Church, 2338
 — patriarch, 2337
Nestorianism, in China, 3508-09
 — and medicine, 5040
 — in Mesopotamia, 2624
Nestorius, bp. of Constantinople, 2337
Netherlands, Alva in, 2407
 — cloth industry in, 2024
 — France annexes, 4105
 — Joseph II in, 3913
 — Louis Bonaparte king of, 4101
 — Louis XIV claims, 3740
 — parliamentary government in, 3678
 — Protestantism established, 3479
 — revolt against Spain, 3167, 3170-71
 — separation into two states, 3173
 — in 17th century, map, 1738
 — under Spanish rule, 3459, 3465
 — in 13th cent., 3079
 See also **Belgium**; **Flanders**; **Holland**
Netherlands, Sir Francis, agent of, James I., 3639
Neuchâtel, lake settlements, 267
Neuilly, treaty of (1919), 4877
Neuroi, tribe, 2471, 2475
Ne-user-ra, king, 559
Neustria, 2260, 2406, 2506
Neuve Chapelle, battle of, 4805
 — village after battle, 4755
Nevada, admitted to Union, 4507
 — silver in, 4504
Neville's Cross, battle, 2008
Newton, C. R. W., modernism, 5037
New Amsterdam, in 1661, 3549, 4010
Newberie, John, journey to India, 3572
New Britain, trepanning in, 298
New Brunswick, American colonies in, 4507
New Carthage : see **Cartagena**
Newcastle, duke of, and Canadian tariffs, 4605
Newcastle-on-Tyne, castle, 2716
 — Roman bridge, 2010
Newcomen, Thomas, atmospheric engine, 1351
New Cross, Louis Philippe at, 4366
Newdegate, Sebastian, Carthusian, 3357
New Economic Policy : see **Nep**
New England, colonies unite, 4022
 — cotton factories in, 4500
 — early map in, 215
 — economic problems, 4010, 1021
 — European occupation (map), 4006
 — Industrial Revolution in, 4487
 — revolt in, 411
 — settlement of, 3548
 — theatre in, 4019
New Forest, ancient potteries in, 2153
Newfoundland, British control, 3763
 — Canada and, 4607
 — Gastaldi's map, 3603
 — Gilbert's colony in, 3574
 — Vikings in, 2527
 — wireless station, 4703
New France, Gastaldi's map, 3603
Newgate Gaol, 4238
New Guinea, Australian mandate, 4641
 — bull-roarer, 299
 — Germany in, 4639
 — primitive, 271, 279
New Hebrides, Melanesians from, 211
 — S-shaped bow, 281
New Lanark, Owen's mills, 4400
Nowman, J. H., a great stylist, 4551
New Mexico, admitted to Union, 4597
New Model Army, Cromwell's, 3728
New Orleans, British troops defeated at (1814), 4112
 — French colony, 3801
 — James Eads and, 4498
New Red Sandstone, in England, 101
New Rome, on the Bosphorus, 405
 See also **Constantinople**
New Segovia, and buccannery 3811
New South Wales, representative government in, 4611
 — socialism in, 4993
Newspapers, in colonial America, 4017
 — during French Revolution, 4141
New Spring Garden : see **Vauxhall**
New Testament, 1564
Newton, Sir Isaac, 3818, 3825-28
 — home, 1246
New World, discovery, 3115
 — races in, 314-20, 470
 See also **America**
New Year, Babylonian beliefs, 582, 649
New York City, British besieged in, 3100
 — Broadway, 4593, 4715
 — chess for aliens, 318
 — earliest map, 3549
 — elevated railways, 4503
 — English obtain, 3768
 — General Post Office, 1551
 — Manhattan from air, 3058
 — panorama in 1710, 4010-11
 — telephone Building, 5031
New Zealand, aborigines, 2570, 2601
 — colonisation, 4598, 4612, 4623
 — Dominion States (1907), 414, 4611
 — Great Britain annexes, 4613
 — navy, 4621
 See also **Māori**
New Zealand Company, founds Wellington, 4613
Ney, Marshal, at Quatre Bras, 4108
Nezahualcoyotl, ruler of Texcoco, 3364
Niagara Falls, power from, 4737
Niaux, cave with paintings, 207
 — earliest writing, 260
 — figures of bison, 199, 253, 260
 — and drawing of trout, 253
Nicaea, capital of Rome, 2645
 — Crusaders besiege, 2594
 — conquer, 2652
 — Greek emperors, 2750, 2822
 — Saracens routed at (A.D. 325), 2358
Nicaea, Council of (A.D. 325), 2332, 2331
 — and Arian doctrine, 2128
 — (787), 2113
Nicaragua, American suzerainty in, 395
 — buccannery and, 3810
 — dictatorship of Zelaya, 4388
Niccolò, Niccolò de' (d. 1437), 3822
Nicene Creed, formulation, 2334
Nicephorus I, emperor, portrait, 2414
Nicephorus II (Phocas), emperor, 2610-11
 — the Laura founded, 2627
 — Luitprand and, 2623
Nicephorus III, emperor, 2650
Nicholas I, tsar of Russia, 4262, 4263
 — and Crimean War, 4373
 — death, 4375
Nicholas II, tsar of Russia, 4502, 4563
 — and Brussloff, 4773
 — in captivity, 4948, 4949
 — champion of autocracy, 4940
 — character, 4943
 — and Hague Conference, 4574, 4575
 — murder with family, 4962
 — receives strikers, 4942
 — refuses emstitution, 4947
 — at Tobolsk, 4960, 4961
Nicholas, king of Montenegro, 4582
 — and siege of Scutari, 4584
Nicholas I, pope, and Byzantine patriarch, 2423
 — Forged Decretals and, 3019
 — secular claims, 3023
Nicholas II, pope, 2506, 2773
 — and Normans, 2506, 2615
Nicolas V, pope, 3323, 3351
 — indulgence, 3184, 3185
Nicholas, Grand Duke of Russia, 4764, 4945
Nicholas of Cusa, theory of Earth's motion, 49
Nicholas of Hereford, and Bible, 3075
Nicholson, John, in Indian Mutiny, 4403, 4465
Nicholson, William, discoveries, 3200
Nicholson's Nek, S. Africa, 4572
Nicias, at least, 1283
 — peace of, 1243
 — and Sicilian expedition, 1243-44
 — use of wealth, 1256

Nicodemus, 1980
 —sculptured head, 3216
 Nicolai, C. F., publisher, 3049
 Nicolaus, king of Bithynia, 1410, 1526
 —and Gauls, 1585
 —and Romans, 1770
 Nicomedia, Christian church at, 2188
 —Dioecesan, 2128
 Nicopolis, battle of (1396), 3008
 —council before, 3153
 —Gothic siege (250), 2116
 Nidaba, and Lugni-zaggai, 947
 Nidint-Bel, satrap of Babylon, 1090
 Nienport, after-war reconstruction, 4916
 Niger (river), exploration, 4029
 Nigeria, British protectorate, 4630
 —bronzes from Benin, 293, 294
 —primitive hoes, 234
 —village, 234
 Nightingale, Florence, 377, 4408
 —at Seutari, 4374
 Nihilism, failure, 4447
 —in Russia, 4559, 4939
 Nika Riot, 2265, 2296
 Nike (Victory), on coin, 1410
 —Paeonian statue, 1200, 1288
 —of Samothrace, 1411
 Nike Apteros, shrine, 1290
 Nikon, Russian patriarch, 3932
 Nikou, ruler in ancient Egypt, 1015
 —See also Necho
 Nile, river, 406-61, 432, 486
 —boat-builders, 501
 —civilization centre, 421, 451
 —Egyptian beliefs, 431, 747
 —ferry, 547
 —fords, 544
 —river bed, 36
 —valley, flint from, 37
 —vessels, 465, 500
 —See also Egypt
 Nile, Battle of the, 4094, 4095, 4185
 Nilus, S., of Rossano, 2092
 Nimengen; see Nimwegen
 Nimes, Maleson Carrière, 2060
 —Pont du Gard, 2042, 2043, 2047
 —Temple of Diana, 2032
 Nimrod, Aegyrian ruler, 3922
 Nimrud; see Calah
 Nimwegen, treaty of, and Louis XIV, 3742, 3743
 Nineteenth Century, an age of inquiry, 5048
 —Europe after Napoleonic wars, 4270-85
 —free trade, 4475-80
 —humanitarianism, 4399-4410
 —industrial revolution, 4341-61
 —medical discoveries, 4619
 —middle classes in England and Europe, 4425-42
 —romantic movement in art and literature, 4290-4317
 —science and thought, 4521-34
 —scientific discoveries, 4696-4710
 —trades unionism, 4667-82
 —Victorian literature, 4535-52
 Nineveh, 945-82
 —bas-relief from, 530, 964, 968
 —fall of (612 B.C.), 400, 832
 —Palestine, subject to, 306
 —See also Ashur; Assyria; Calah
 Nin-Gal, heads of, 538
 —temple of, 530, 531
 —Ur Engur appears before, 530
 —wife of moon god, Ur, 530
 Ningiran, god of Lagash, 524
 —in Gudca's pantheon, 548
 Nin-til, wife of Enlil, 538
 Ninurta, marriage with Bau, 643
 Nirvana, Buddhist teaching, 1211
 Nisaba, goddess of Umma, 524
 Nishada people of pre-Aryan India, 452
 Nisibis, college at, 2311
 —fortress, Persians and, 2118, 2162
 Niti-sastras, 2460
 Nitrate, discovery, Pacific coast, 4331
 —traffic threatened by Germany, 4837
 Nitria, monks in, 2275
 —murder of Hypatia, 2334
 Nitrogen, war-time discoveries, 4780
 Nitti, Signor, at San Remo Conference, 4887
 Nizami Aruzi, writings, 2708
 Nizami of Ganja, poet, 2703

Nizam ul-Mulk, waar, 2784-90
 —Book of Government, 2701
 Noah, and race-origins, 303
 Noah's Ark, in Caddum MS., 2464
 Nobilior, M. Fulvius, bridge, 2036
 Nobility, French, pre-Revolution, 3850, 4114
 —in Germany, 18th cent., 3943, 3964
 —Roman; see Patricians
 Nohunaga, rule in Japan, 3433
 Nogaret, William de, and Bonifacio VIII, 3063
 Nogi, Count, takes Port Arthur, 4568, 4569
 Nomads, clash with different cultures, 440
 No-man's-land, in warfare, 4827
 Nomarchate, powers of the, 496, 498, 543, 544
 Nomo, Egyptian territorial division, 424, 493, 494, 495
 Nonconformity, after the Great War, 4892-93
 —in France, 3805
 —John Wesley and, 4201-00
 Non-Partisan League, in American politics, 4515
 Nora, Phoenician site, Sardinia, 1632
 Nordio Race, 232, 333-4, 2515
 —America colonised by, 315-18
 —Celts supplanted by, 1515
 —in Europe, 225-26, 232
 —Mediterraneans blended with, 300
 —See also Caucasians; Germanic Peoples; Saxons; Teutons; Vikings
 Nordlingen, battle of (1034), 3500, 3652
 —(1645), 3654
 Noricum, map, 406
 Norman Architecture, castle, 2608, 2609, 2706, 2700, 2712-16, 2710, 3423
 —French, 2002
 —church, English, 2611, 2612, 2706, 2710-11, 2717-18
 —Sicilian, 2090, 2098-2700
 Normandy, 2003-11
 —economic development, 2720
 —English loots, 2747-48
 —Franco acquires, 2616
 —monasteries in, 2611
 —Northmen in, 2496
 Normans, 2603-16
 —armour, 2006-07, 2927, 2928
 —emigration from Normandy, 2611-12
 —in England, 2613, 2657, 2705-33
 —feudal monarchy, 2693, 2719
 —in Italy, 2615
 —origins, 2404-95, 2804, 2616
 —Papal alliance, 2535, 2615
 —and Scotland, 2616, 2658
 —in Sicily, 2656, 2660-2705
 Norse Art, 2517-18, 2622
 Norsemen, 2524; see also Northmen; Vikings
 North, Lord, attacks Warren Hastings, 3906
 —on the constitution, 4532
 North America aborigines, 2505
 —Cabo's expedition, 410, 3295
 —Colonial life in, 4005-31
 —early cultures, 2565-74
 —English colonists revolt, 394, 411
 —European occupation, 317, 4006
 —fauna, 131
 —geology, 84, 85, 100-10
 —Jesuit pioneers in, 410
 —race mixtures, 310-20
 —Wesley in, 4202
 —See also Canada; U.S.A.
 North American Indians; see American Indians
 Northampton, John of, 3608
 Northampton, Treaty of (1328), 2607
 North and South, War of; see American Civil War
 Northbrook, 1st Earl of, in India 4468
 Northcliffe, Lord, and American standardisation, 4726
 Northern Securities Co., 4510, 4715
 Northmen, chess figures of, 2606
 —chief armed, 2215
 —raids on Prince, 2423, 2494-96
 —settlements and raids, 2496, 2604
 —See also Danes; Normans; Vikings

North Sea, piracy in, 3802
 —in Pliocene Period, 152
 —river beds in, 27, 28
 Northumberland, lordship of, 2708
 —Roman bridges, 2040
 Northumberland House, London, in 1753, 4240
 Northumbria, 2350, 2410
 —civilization in, 2450
 —Danish conquest, 2463, 2497
 —under Edwin, 2371
 North Waltham, Pisansants' Revolt at, 3102
 North-West Passage, search for, 3570
 North-West Provinces (India), 4440, 4470
 Norway, under Danish rule, 3313
 —early colonisation, 2524
 —man in, 214
 —fjords, 110
 —Hansatic League, 3051
 —kingdom founded, 2524
 —Scotland and, 2830
 —socialism in, 4988
 —Sweden, separation from, 4564
 —union, 1367, 3134, 4257
 —See also Vikings
 Norwich, radicalism in, 4433, 4470
 —riots in, 4425
 Norwich, Bishop of, and peasants' rebellions, 3086, 3102
 —rebellions, 3086, 3102
 Nose-piercing, Arabs, 3374, 3375
 Nose ring, in Carthage, 1617, 1618
 Noskiran; see Chiosroci
 Notker Balbulus, monk, 2080-87
 Nottingham, Illegals at, 4348
 Nour ad-Din, 2741-42, 2805
 Novaeium, near Düsseldorf, Roman military hospital, 2241
 Novaire, Philippe de, on education of women, 380
 Novara, battle of, 4367, 4370
 Nova Scotia, Britain takes, 3760
 —French settlement in 4005
 Novel, in China, 3517
 —in Germany, 3950
 —in Greek literature, 1362
 —Petronius and, 1896
 —26th cent., 5013-21
 —of Victorian Age, 4584, 4585
 Novgorod (Old), 3917-16, 3926
 —fall of (1471), 3054, 3620
 —Hansatic trade in, 3051-54
 —Ivan III absorbs, 3619
 —Sweden captures, 3927
 —view by Witzen, 3920
 —Vikings found, 2623
 Nubia, Amenhotep II in, 658, 664
 —civilization, 1609
 —Egyptian invasions, 426, 554, 561, 668
 —rule in, 495, 676
 —temples in, 679
 —origin of name, 358
 —pottery, 557
 —pyramids in, 508, 1009
 —religion in, 1010, 2637
 —sandstone in, 704
 —Scusret III subdues, 561
 —temple of Amen, 1010
 —Thothmes III invades, 663
 —Userktn's expedition to, 426
 Nubians, Egyptianised, 681, 1009
 —homage to Thothmes III, 662
 Nu-ch'an, Tungusic tribe, 2661
 Nuh, Samanid ruler, 2779
 Nukhase, raided by Hittites, 731
 Numa, Roman king, coin, 1045
 —religious organization, 1746
 Numantia, destruction, 1710
 —Roman siege, 1699, 1700
 Numbers, Archimedes' system, 2099
 —in different languages, 323-0
 —Egyptian notation, 502
 —primitive ciphering, 208
 —Pythagorean theory, 1472
 Numenius of Apamea, philosophy, 2095
 Numerian, Roman emperor, 2122
 Numidia, and Carthage, 1631, 1607
 —Medresen, 1631
 —wars with Rome, 1700-70
 Numidius Metellius, on women, 389
 Nuns, Benedictines in choir, 387
 —in Byzantine empire, 2028
 —only career for women, 381

- Nur, Russian town, 2471
 Nuraghi, in Sardinia, 614, 1632
 Nuremberg, and Behaim's terrestrial globe, 3532
 —commerce, medieval, 2915
 —Dürer's house, 3458
 —Wallenstein attacks, 3619
 Nurhachi, Manchū dynasty founded, 3521, 4648
 Nur Jehan, Jahangir's wife, 3771, plate f.p. 3779, 3784
 —name on coins, 3791
 Nur Land, district, Poland, 2471
 Nursing, Dickens and, 1406
 Nursing Homes, in Roman times, 2241
 Nurzec, river, 2171
 Nurzat Shah, king of Bengal, 3177
 Nut: see Hathor
 Nuts in May, significance of game, 346
 Nyasa Lake, from Spilixhaven, 4631
 Nyasaland, 1632
 Nydam, Dutilmont, armour from, 2215
 —ship from, 2152
 Nymphæum, 2057-58
 Nymphs, worship by Greeks 1367
 Nysäus, Peas of, 1880
- O
- O', in Irish surname, 1507
 Oakham, Rutland castle, 2716
 Oath, Anglo-Saxon, 2463
 —in Heroic Age, 851
 —Semitic, 1665
 Oaxaca, Maya influence, 2584, 2585
 —Zapotec people in, 2588
 Obedience, in monasticism, 2278
 Obedullah, governor of Kufa, 2351
 Obelisk, how erected, 703
 —Karual and Aswan, 703
 —from Shalmaneser's palace, 850
 Ob-Itsyin, Muscovite empire extended to, 3925
 Obregon, Alvaro, Mexican president, 4387, 4388
 Observatory, of Kublai Khan, 2557
 —Mount Wilson, 58-9
 —Stonehenge as, 629
 Obsidian, in Asia Minor, 591
 —in Neolithic Crete, 594
 —for tools, Mesopotamia, 513
 Occidentalism, Greeks as archetype, 1184
 Ocean, variations in geological periods, 91, 95-98, 101, 108-09, 132
 —origin, 79
 Ochino, Protestant of Siena, 3218
 Ochris, in Aurignacian burials, 250
 —and Australian aborigines, 210
 —red, as currency, 292
 —symbol of vitality, 297, 356
 Ockham, William of, philosopher, 3072
 —and imperial politics, 3071-72
 O'Connor, Feargus, 4437
 Octavia, wife of Mark Antony, 1791-93
 —portrait, 1789
 Octavia, wife of Nero, divorce, 1856
 Octavian: see Augustus
 Octavians, tribune, 1707
 Octopus, on Minoan jar, plate, 754
 Octroi, in France and Italy, 4479
 Odenathus, of Palmyra, 2118-20
 Odessa, communist prison, 4961
 Odham, brass, 3422
 Odo, king of France, 2495-96, 2506
 Odo, bishop of Bayeux, and Bayeux Tapestry, 2503, 2607
 —manor, 2709
 Odo, builder (9th cent.), 2443
 Odoacer, Western ruler, 2209, 2255-58
 —on coin, 2257
 Oderic or Odozio, of Pordenone, 2909, 3503
 Odysseus or Ulysses, 989
 —Achaean chief, 789
 —adventures, 838-51, 1171
 —brooch, 811, 845
 —Greece in time of, 838-42, 845-51
 —and Penelope's suitors, 1341
 —in Roman art, 1934
 —and Sirens, 1641
 Odyssey, 1333, 1341
 —on Greek vase, 15
 —historical value of, 835-51
 —sailing in, 1630, 1641
 Oedipus, legend, on Boeotian ring, 790
 —and the Sphinx, 1306
 Oedipus Tyrannus, tragedy, 1352
 —model of classic tragedy, 4039
 Oeneus, king of Calydon, 988
 Offa, king of Mercia, coin, 2423
 —by Matthew Paris, 2453, 2733
 Offamil, Walter, archbishop of Palermo, 2499, 2705
 O'Fihilly, Maurice, Irish primate, 2689
 Ogdaï, Mongol ruler, 2317
 —palace, 2347
 —state reception, 2819
 Ogham Alphahet, carvings, 1509
 Oghuz, Turkish horde: see Ghuzz
 Ogilvie, William, and communism, 4979
 Ogilthorpe, James, founds Georgia, 4008
 —and Savannah, 4012
 Ogulnius, Gaius, tribune law of, 1653
 O'Higgins, Bernardo, crossing the Andes, 4423
 Oil, in coal, 102
 —in Mexico, 4333
 —stored in palace, Cnossus, 603
 Okapi, early type, 134
 Okhotsk, Sea of, steam whalers in, 4112
 Oklahoma, petroleum in, 4497
 Okuma, Marquis, leaves Japanese ministry, 4113
 Olaf (the White), king in Dublin, 2525
 Olaf I (the Saint), king of Norway, 2526
 Olaf II Trygvasson, king of Norway, 2507, 2526
 Olbia, on Black Sea, bronze coins, 1542
 —Greeks found, 1058
 Old Bailey, on site of Newgate, 4238
 Old Believers, exiled from Russia, 4941
 —secede from Russian Church, 3932
 Old Kingdom: see Egypt
 Old Man of the Mountains: see Hasan-i-Sabbah
 Old Red Sandstone, Devonian fish in, 100, 113
 —flora, 101
 —formation, 100
 Old Testament, Jewish descent in, 812
 Oleg, Viking leader, 2521
 Olga, queen of Kiev, 2637
 Oligarchy (aristocracy rule) Greece, 1042-45, 1112-14, 1118-19
 —Venice, 3034, 3035
 Oligocene Period, 44, 132-33, 100, 161
 —anthropoids, 163
 —mammoths, 133
 —plate f.p. 96
 Oliva, Treaty of, 3602
 Olivasz, imitates Richieu, 3613
 Olive, Greek harvest, 595
 —limits of growth, map, 343
 —oil used by Greeks, 1309
 Ollantaitambo, megalithic fortress, 2503
 Olivier, a French Salon, 383
 Olmütz, Lafayette imprisoned at, 4164
 Olonois, François I', pirate, 3811
 Olybrius, emperor, 2208
 Olympia, temple of Zeus, 1191, 1272
 Olympias, mother of Alex. the Gr., 1424
 —death, 1405, 1412, 1446
 —and husband's death, 1406
 Olympic Games, ancient, 1318, 1500
 —modern, at Antwerp (1920), 1509
 Olynthian or Chalcidian League, 1248
 Olynthus, capture of, 1401
 Omar I, khalif, 2345-48
 Omar II, khalif, 2367-58
 Omar Khayyam, 2790
 Omdurman, battle of, 4571, 4637
 —Mahdi's tomb, 4571
 Ommiads (dynasty), 2530
 —Abbasids and, 2513
 —massacre of, 2411
 —restoration of, 2351
 —in Spain, 2410-12
 Omri, king of Israel, 820
 —fall of house of, 879
 —prophets under, 825
 —ruins of palace, 822
 Ona, native of Tierra del Fuego, 312
 Onomatopoeia, in early language, 322
 Onslow, Arthur, speaker, 3881
 Ontario, foundation of colony, 411
 Oolite, type of limestone, 103
 Open field, medieval system, 2662-64, 2727
 Opera, in China, 3516
 —German, 3957
 Ophir, identified with Yemen, 3401
 —Zimbabwe, 3100
 Ophthalmia, caused by pollen, Baby-lonia, 582
 Opicossiva, festival, 1713
 Opie, S., Mary Wollstonecraft, 4216
 Opimus, consul, 1769-69
 Opium, dispute with China, 18th cent., 4653
 Oppas, Archbishop, betrayal of Roderic, 3268
 Oppian Law, against women, 3880
 Ops, Latin spirit, 1736
 —festivals, 1743-44
 Optics, Greek knowledge, 2nd cent. A.D., 2071, 2072
 —and electro-magnetism, 4702
 Oracle, Alexander the Great and the, 1439-41, 1447
 —in Rome, 1752
 Orang, 109, 170
 —cranial capacity, 171
 Orange, France, Roman arch, 1784
 —Roman theatre, 2027
 Orange Free State, 4619
 Orangerie, Wye House, 4013
 Orator, Etrusco-Roman statue, 1921
 Oratory, Ciceronian, 2247
 —in 18th century England, 4212
 —Roman, 2013
 Oregana, Renaissance painter, 3235
 Orehomans, bedchamber tombs at, 785
 —kingdom founded, 736
 —Mingan culture at, 772
 —Sulla's victory at, 174
 Ordeal by battle, in England, 2614
 Oresius Vitalis, chronicler, 2603
 Ordia-Nashchokan, Russian foreign minister, 5931
 Ordovician Period, 91, 94-96, plate f.p. 96
 Oregon, admitted to Union, 4507
 —boundary dispute, 4278
 Oregon Treaty (1846), 4606
 Orestes, Agamemnon slain, 1350
 —master of soldiers at Rome, 2900
 —and the plumed Furies, 1351
 Ore zone, crust of earth, 79
 Organ, Anglo-Norman, 2969
 Orient, Greek influence in, 1387, 1487
 Orientalism, and Greek ideals, 1183-1202
 Origen, Christian teaching, 2095, 2171
 —death, 2186
 —Gnosticism destroyed by, 2905
 —and image worship, 3012
 —and Justinian, 2310
 —and Nicene Creed, 2334
 —Papal condemnation, 2483
 —theology, 2331
 Oriolo, Giovanni, portrait by, 3214
 Orkhan, Ottoman ruler, 2904
 Orkney, Earls of, descent, 2525
 Orkney Islands, Vikings in, 2521, 2525
 Orlando, Signor, in Big Four, 1377
 Orlean, House of, on French throne, 4268
 See also Louis Philippe
 Orleans, Philip of, regent of France, 3379
 Ormuz, Marco Polo at, 2914
 —Portuguese capture, 3534
 Ormuzd, god, 2316
 —later version of Varuna, 654
 See also Ahura-Mazda
 Ornithopoda, group of dinosaurs, 126
 Orochon, broad head, 229
 Orotes, satrap of Sardis, 1089, 1092
 Orontes, Amorites from valley, 797
 Oropus, town, 1909
 Orosius, Christian apologist, 2225
 Orphage, Byzantine institution, 2642
 Orpheus, account of mysteries, 1385-86
 Orphic Club, of Philadelphina, 4018
 Orsini, family, ancestry, 2773
 —in Rome, 2770
 Orthodox Church: see Greek Church
 Orthopaedics, in war-time, 4790
 Orvisio, Perugia, 1597
 Oryx, as Egyptian symbol, 494
 Osbaldeston, George, cricketer, 4226
 Osborn, H. F., on Pliocene Man, 151

- Osborne Judgement, results, 4680
 Oscan dialect, 1880-81
 Osberg, Norway, Viking relics from, 2516-2519
 Osiris, god, 546-47, 645
 —Hyblus tradition about, 561, 1012
 —Egyptian king identified with, 358, 363, 498
 —immortality of, 2089
 —lessons from myth, 653
 —negative confession to, 546, 651
 —origin of worship, 463
 —sacred eye, 1627
 —and Serapis, 2087
 —Seti I worshipping, 648
 —with sister deities, 646
 Osmanli-Turkish, language group, 326
 Osman Pasha, defence of Plevna, 4397, 4398
 Osmotic Growths, artillelial, 87, 89
 Osnabrick, treaty of, 3633
 Ossian : see Macpherson, James
 Ossianism, origin and influence, 4308-9
 Ostend, German occupation of, 4748
 —submarine base blocked, 4780
 Osteolepids, bony-scaled fishes, 114
 Ostia, 1874, 1875, 2007, 2011
 —grain ship, 1996
 —harbour works, 2049, 2050
 —reconstructions, 2010, 2019, 2026
 —street of the Casa di Diana, 2239
 Ostiaks, bear-cults, 192
 Ostrobs, Caracalla defeated by, 1854
 Ostracism, in ancient Greece, 1121
 Ostracoderm, vertebrate, 112
 Ostrich, Bushman stalking, plate, 204
 —mint head, Abydos, 492
 —on predynastic vase, 463
 Ostrog, first Slavonic Bible, 3025
 Ostrogothia, king, 2213
 Ostrogothic Kingdom, map, 2256
 Ostrogoths, 2218-14, 2255-67
 —coins, 29
 —home of, 2201
 —power destroyed by Narses, 2237
 Oswald, k. of Northumbria, baptism, 2377
 Othman, founder of Ottoman power, 2533, 2904
 Othman, governor of Septimania, 2361
 Othman, Khalif, 2348-49
 Othniel, a Kouite, 815
 Otho, Marcus Salvius, Roman emperor, 1857-58
 ——worship of Isis, 2087
 Otis, James, American lawyer, 4027
 Otranto, cathedral, 2704
 —dolmens near, 013
 Otawa, Parliament House, 4006
 Otter, as fishing ally, 284
 Otio I (the Great), emperor, 408, 2190-92, 3150
 —empire revived, 2490, 2751, 2771
 Otto II, emperor, 2501, 2502
 Otto III, emperor, 2502, 2503
 Otto IV (of Brunswick), emperor, 2740-47, 2838
 —and Innocent III, 2747
 Otto, king of the Hellenes, 4204
 —entering Nauplia, 4266
 —satire, 4270
 Ottocar, king of Bohemia, 2820, 3004
 Ottoman Empire, comparison with Mogul, 3779
 —organization and growth, 409, 410
 —power and extent (14th cent.), 2904, map 3122, 3123
 —Tamerlane's invasions, 3121
 See also under Turkey
 Ottoman Turks, arrival in Europe, 409-10, 3155
 —crusaders and, 2814
 —origin of name, 2833
 See also Turks
 Oudenarde, battle of, 3760
 Ouh, annexed by Britain, 4402
 —breaks away from Moguls, 3798
 Outram, Sir James, relieves Lucknow, 4404
 Ou-yang Hsiu, Chinese writer, 2501
 Ovid, 1886-88, 1892-93
 —influence, 2245
 —on religion, 1730, 1001
 —on rustic religious rites, 1742
 Ovinus, tribune, 1801
 Owen, Richard, home, 3496
 Owen, Robert, anti-religionist, 4280
 ——mills at New Lanark, 4399, 4400
 ——socialism, 4981
 ——on social reform, 4438
 ——and trade unionism, 4671
 Owls, on Greek coins, 1394, 1562
 Ox, drawing, Les Combardelles, 253
 —sacred in Neolithic Crete, 595
 —in Trojan pottery, 867
 See also Bull
 Oxen, ancestors, 133
 —domestication, 342, 486
 Oxenstierna, Axel, Count, 3596
 ——and Gustavus, 3680, 3618
 Oxford, armorial bearings of city, 2981
 —allege of, 2032
 Oxford, Earl of : see Asquith, (I. II.
 Oxford University, and compulsory Greek, 1562
 ——Merton College Library, 3434
 ——old collegiate building, 3431
 Oxford University Press, Dr. Foll's type, 3197
 Oxyartes, Bactrian chief, 1408
 Oxygon, isolated by Priestley, 3331
 Oxyus, Aetolian chief, 983
 Pachacamac, Peruvian god, 3387
 Pachacutec, or Ympanqui, Inca ruler, 3300, 3380
 Pachomius, rules for monasticism, 2275
 Pacific Islanders Protection Act, 4639
 Pacific Ocean, theory of monn's source in, 70
 Pacific Steam Navigation Co., and Latin America, 4327
 Pacinotti, ring machine, 4705
 Pacorus, king of Parthia, 1791-92
 Pacuvius, tragedian, 1886
 Paddington Canal, barge party, 4252
 Paderewski, I. J., at League of Nations, 4026
 Padri, king of Ekeon, 830
 Padua, Giotto's frescoes, 3332
 —medical school, 604
 —University of, Averroism at, 3018
 —Venetian wars, 2760, 3039
 —Venetian teaching at, 3228
 Paeonidae, Attic family, 1042
 Paeonius, Greek sculptor, Nike, 1200
 Paestum (Posidippia), temples, 1054-55
 Paez, Venezuelan dictator, 4334
 Paganism, Christianity and, 1763, 2178, 2204, 2224
 —in Imperial Rome, 2083, 2222-23
 —and Mahomedanism, 2370
 —and Medieval Church, 3014
 —and philosophy, 1890-1010
 —and Renaissance, 3234, 3240 3240
 —Theodosius prescribes, 2200
 —and witchcraft, 3254
 Pageants, medieval, 3440, 3451
 —in Tudor England, 3502
 Pahlavans, 2318
 Pahlavi, Persian language, 2318
 Pajm, problem of, 4801
 Paine, Thomas, and Parliamentary representation, 4420
 —satire on, 4433
 Painted Ware Culture, 772
 —Chinese, 2335
 —Cycladic, 610, 770, 772
 —extent, map, 900, chart, 902
 —Hallstatt, plate 923
 —Indo-Sumerian, 450
 —Japanese, 2389
 —Minoan, Early, 596-98
 —Rumanian, 772
 —in Sicily, 611
 —Sumerian and Elamite, 456-58, 513
 —in Ukraine, 772
 —widespread range, 456-57
 Painting, Aztec, plate f.p. 3371
 —Bushman plates, 203-4
 —cave : see Cave Art
 —Chinese, Tang and Sung, plate f.p. 2553
 —Egyptian, Middle Kingdom, plate f.p. 552-3, 555, 564
 —English, 18th cent., plate f.p. 4218
 —Etruscan, plates f.p. 1168-69
 Painting—cont.
 —French, 17th and 18th cents., plates f.p. 3854, 3893
 —German, 18th cent., plate f.p. 3982
 —Great War, plates f.p. 2772-3
 —Greek, 1331, 1550
 —Italian, 15th cent., plate f.p. 3206
 —Japanese, plate f.p. 4421
 —Minoan, plate f.p. 608
 —modern, plates f.p. 4772-73 and 5026-27, 5021-31
 —Mogul, plates f.p. 3778-79
 —prehistoric, plates, 291-2, 261-4
 —Renaissance, 3227-32, 3235, 3325-33
 —Roman, 1933, 1934-39
 —Venetian, plates f.p. 3644-15
 See also Manuscripts : and entries under the art of various countries or cultures, e.g., Chinese Art ; Etruscan Art, etc.
 Paints, of prehistoric artist, 257
 Palace, Cretan, 702
 —Egyptian, 688
 —of Middle Minoan period, 600
 —of occupants of beehive tombs, 783
 Palaeolithic, 143, 146
 —superstitions associated with, 352
 Palaeolithic Age (Old Stone Age), 143, 287-320, 344-68
 ——in America, 2567, 2589
 ——in Asia Minor, 590
 ——bow, invention of, 279
 ——in Egypt, 422, 459
 ——end of, 310
 ——extent and divisions, 113, 220.
 ———chart, f.p. 290
 ——fine flint working, 180, 216
 ——implements, earliest bone and flint, 152-55
 ———flint, horn, etc., 244-49, 266
 ———six types, 27
 ——in Italy, 612
 ——in Japan, 2382
 ——man, evolution in, 141-53
 ——in Mesopotamia, 511
 ——pamphlet of modern parallels, 211-13, 275-300
 ——shells in burial ritual, 357, 360
 ——in Spain, plates, 201-2, 205, 250-52, 251-57, plates 201-64, 214
 See also Cave Art ; Cave Man ; Ice Age ; and separate cultures as Acheulean, Aurignacian, etc.
 Palaeomastodon, Oligocene elephant, 137
 Palaeoniscids, group of lung fish, 114
 Palaeotheres, origin, 132
 Palaeozoic Era, 43, 44, 80, 96
 Palinkastro, dancing group from, 767
 —excavations at, 770
 —ivory figurine from, 769
 —model of boat from, 467
 —pottery from, plate f.p. 609
 Palanga, Hittite monuments, 718
 Palatine, attacked by Louis XIV, 3746
 —Catholicisation of, 3623
 See also Frederick V of Bohemia (Electoral Palatine)
 Palenque, Maya temple, 2582
 —reliefs, 2586-87
 Palermo, cathedral, 2699
 —tomb of Frederick II, 2844
 —cathedral royal, 2695
 —Garibaldi captures, 4378
 —Martorana church, 2696-98
 —under Normans, 2701-02
 —Phoenician occupation, 1179
 —Romans take, 1633
 —sea-fight off, 2755
 Palermo Stone, predynastic kings on, 24, 493
 Pales, rustic spirit, 1743
 Palestine, Ancient, colonisation, 808
 —Egyptian influence, 680, 1007
 —invasions, 608, 671, 078
 —Israelites in, map, 813
 —under Jewish kings, map, 821
 —Khaborra driven from, 800
 —Mycenae objects from, 809
 —proto-Elamite jar from, 457
 —Rameses II and, 670
 See also Israel ; Jerusalem ; Jews ; Judaea

- Palestine, Medieval, 2645
 —Crusaders in, 2666, 2797
 —Maccabees in, 1703
 —Romans in, 1870-71
 Palestine, Modern, British mandate, 4611, 4878
 Palette, slate, of Narmer, 197
 —predynastic Egypt, 183, 193
 Palettes, in armour, 2933
 Paley, William, Evidences of Christianity, 4069
 Pali, language, 2399
 Palissy, Bernard, use of enamel, 3237
 Palitsyn, Abraham, Russian patriot, 3928
 Palladian Architecture, Banqueting Hall, Whitehall, 4031
 —Chiswick House, 4032
 —Somerset House, 4248
 —Villa Capra, 4032
 Palladio, Andrea, Venetian Architect, 4032, 4034
 Palladius, on monasticism, 2275
 Pallas, Roman freedman, 1855, 2004
 Pallas Athene, Indo-Hellenic representations, 1491, 1496
 See also Athena
 Pallas, Peter, Russian traveller, 3942
 Pallium, 2485
 Palm, fossil, from Bournemouth, 109
 —northern limit, map, 343
 —in Spain, 3268
 Palmer, Leipzig bookseller, 4294
 Palmer, E. H., translation of Anwarī, 2793
 Palmer, Richard, bishop of Syracuse, 2699
 Palmer, Roger, husband of Lady Castlemaine, 4000
 Palmerstool, Lord, 4264, 1865
 —and Chinese War, 4371
 —and Turkish Empire, 4550
 Palmetto, in Egyptian design, 33
 —in Mycenaean design, 842
 Palmyra, ruins of arch, 2421
 —siege of, 2120-21
 —under Zenobia, 2120
 Pamba, Ifittio king, 429
 Pamirian Man, 229, 230
 Paminis, emigration route, 445
 Pampulacozoic Era, description, 80
 —folded and wrinkled rocks, 81
 —limestones, 83
 Pampas, grain area, 4237
 Pampeluna, Loyola at siege, 3082
 Pampphilus, lexicon of, 2170
 Pampphilus, founder of tribe, 983
 Panacetus, philosopher, 1703, 1903
 —funerary stele, 1196
 Panamá, Isthmus of, captured by Buccaneers, 3816
 —mammals cross, 132, 134
 Panamá (state), United States and, 4335, 4727
 Paoamā (town), Morgan captures, 3814
 —Pan-American Congress at, 4325
 —treasury in San José church, 3800
 Panamá Canal, 4336, 4731
 Pan-American Conference, League of Nations and, 4929
 Pan-Americanism, meaning, 4340
 Panathenaic Games, 1208
 —on Parthenon frieze, 1295-97
 —prizes, 1323, 1328-29
 —scenes represented, 1278-79
 Pan Ch'ao, mission to Parthia, 2360
 Panch Mahal, Panchpur Sikri, 3779
 Paneratus, Greek combat, 1321, 1322
 Pandarus, wounded Menelaus, 846
 Pandiarctio Races, identification, 308
 Panipat, battle of, 3707, 3799-97
 —Babur at, 3167, 3307
 Pannartz, Arnold, Italian printer, 3188
 —Roman province, map, 406
 Pannonia, rebellion in, 1719
 Pansa, consul, 1790
 Pansaeus, lectures, 2171
 Panteleimon, S., medical saint, 2631
 Pantiolonia, Neolithic structures on, 612, 614
 Panther (German ship), at Agadir, 4579
 Pantiapneum, see Kerech
 Pantemime, Greek, 1358
 —in Rome, 1830, 2020
 Paoli, Pascal, at Reynolds' party, 4210
 Papacy, 3062-77
 —antipopes, 3008, 3060-70, 3135, 3136
 —at Avignon (Great Schism), 2820, 2846, 2095, 3008, 3062, 3063-70
 —under Boniface VIII, 2832
 —at Bordeaux, 3064
 —caricatures of, 3353, 3621
 —conciliar movement broken, 3138
 —condition (9th cent.), 2187-88
 —(9th and 10th cents.), 2770
 —(11th cent.), 2773
 —(15th cent.), 3046
 —(16th cent.), 3351
 —and Constantinople, 2842, 2486
 —and council of Constance, 3341, 3343
 —criticisms by Musigillo and Ockham, 3072
 —early history, 2321, 2495
 —Empire and, 2420, 2774-75, 2841-8
 —under Frederick II, 2819, 2823, 2835-41
 —under Henry III, 2504
 —under Otto I, 2501
 —Franks champion, 2486
 —French control, Anagni period, 3064, 3068-69
 —Gregory I and, 2270-71
 —under Gregory VII (Hildebrand), 2490, 2618, 2773
 —Guelph and Ghibelline and, 2759, 2763
 —Gustavus Adolphus and, 3639
 —hair of Roman Empire, 407
 —imperialistic ideas, 2835
 —under Innocent III, 2746, 2833
 —internal quarrels, 2197, 3024
 —Italian possessions, 2836-37
 —under Leo I, 2484
 —and medieval Church, 3003-77
 —medieval claims, 3024
 —ideas ending, 2825, 3440
 —Napoleon and, 4186
 —Norman influence, 2505, 2515
 —pagan spirit of, 3241
 —Reformation and, 3350
 —reforming movement falls (10th cent.), 3301
 —relations with State, 3023
 —Rome as headquarters, 3325
 —Rome's hostility (1143), 2735
 —and sack of Rome, 2483
 —and S. American republics, 4324
 —and spiritual supremacy, 2644
 —temporal power claimed, 2270, 2481-91, 2708
 —three popes reigning, 2773, 3135
 —woman pope, 2709
 See also Pope; Roman Catholicism; and under individual popes
 Paper, derivation of, 2165-66
 —made from papyrus, 565
 —royal mills at Langley, 4116
 Paper Money, American, 4026
 —Chinese, 3505, 3506
 Paphos, inscription on rock, 1006
 Papiolan, Roman lawyer, 1980, 2110
 Pappenheim, Count, at Breitenfeld, 3047
 —recalled to Lutzen, 3049
 —on sack of Magdeburg, 3625
 Papplewick, steam mill, 4350
 Papyrus, 2165-66
 —in Egyptian paintings, plate f.p. 552
 —emblem of Lower Egypt, 544
 —harvest, roller, 565
 —in Minoan fresco, 762
 Parā, sacked by Indians, 4329
 Paracelsus, medical discoveries, 3338, 3340, 3828
 —opposition to, 3233
 —use of German instead of Latin, 3223
 Paradise, Egyptian beliefs, 363
 —St. Brodan's Isle, 364
 Paragray, dictators, 4325, 4320
 —Jesuit in, 3688
 —League of Nations and, 4929
 Parasol, introduced into Germany, 3952
 Parchment, origin of word, 2166
 Pargalia, Roman festival, 1741
 Parga, captured by Shalmaneser, 879
 Pariah, Indian outcast, 237
 Parian Chroniola, on siege of Troy, 860
 Pariaurus, early reptile, 119
 Paris, and Charles VI, 3004
 —economic conference (1916), 4478
 —Germans advance on (1914), 4747
 Paris—cont.
 —landmarks in medieval times, 3093
 —under Louis XIV, 4011
 —Louvre, medieval, 3093
 —Marcel's rebellion, 3091-96
 —palace of early kings, 3093
 —Parlement of, see Parlement
 —plague (1533), 3113
 —St. Antoine, battle of, 3599
 —Sainte Chapelle, 2813, 2867, 2872, 2878, 3093
 —siege by Charles the Wise, 3096
 —(1870), 4385, 4386
 —socialism in, 4984
 —university of, 2883
 Paris of Troy, and Sidonian robe, 845
 —judgement of, 1340
 Paris, Egyptian actor, epitaph, 2026
 Paris, Congress of (1856), 4375
 Paris, Declaration of, and piracy, 3801
 Paris, Treaty of (1763), 394, 3902
 —(1814), 4107
 Paris Conference (1919), 4887
 Parish Priest, medieval, 3422
 —Tudor, 3498
 Parker, Judge, in U.S.A. politics, 4713, 4718
 Parkman, Francis, on Jesuits, 3691
 Parlement, of Paris, 3699, 3676
 —and Anne of Austria, 3598
 —attempt for constitutional rights, 3599
 —Convention abolishes, 4082
 —and Necker's taxes, 4131
 Parliament, English, 3637-70
 —Charles I and, 3580
 —Edward I and, 2900-97
 —electorate before 1832, 4420
 —James I and, 3580
 —in James I's time, 3660
 —reform of, 392, 4420
 —women in, 386
 Parliament, Houses of, in time of Charles I, 3670
 —in session, 1041, 3675
 See also Commons; Lords
 Parliament, Japanese, 4421, 4429
 Parliament, Russian, 4442, 4946, 4967
 Parma, founded by Rome, 1711
 —Jesuits expelled, 3689
 Parma, Duke of, 3476-77
 Parma, Duchess of, 3466, 3467
 Parmenides, theory of the world, 1453
 Parmenio, Macedonian general, 1406, 1420, 1430, 1450
 —at battle of the Granicus, 1424, 1430, 1433
 —of Issus, 1437
 —and Darius, 1440, 1442
 Parramatta, river mouth, 4610-11
 Parry, Sir John, on acoustics, 4790
 Parsees, tenets, 2303
 Parsons, Sir C. A., turbine, 4708, 4709
 Partarre, designed by Loudon and Wise, 4301
 Parthamasiris, prince of Armenia, 1967
 Partheoon, 1274, 1289, 1291, 1307
 —British Museum contrasted, 1558
 —building of, 1273
 —destruction, 3753, 3754
 —frieze, 1276-79, 1295-97, 1308-10, 1330
 —pediments, 1294
 —restoration, 1254, 1275
 —sculptures, 1294, 1308
 Partheoonian Republic, 4094
 Parthia, after Alexander, map, 1582
 —cavalryman, 2310
 —constitution, 2307
 —extent of empire, 1760
 —Media and Persia absorbed, 1777
 —overthrow, 2307
 —and Roman trade routes, 1999
 —Rome's defences against, 1986
 —wars with, 1782, 1791-92, 1968, 1973, 1981
 —Sassanids, in, 1981
 —submission to Rome, 1844
 Parthians, bow used by, 281
 Partitio Tractatus, Spanish succession, 3755-56
 Partridge, Bernard, cartoon of William II, 4576
 Parvish, Samuel, and Deuteronomy, 4058

- Pasargadae, capture by Alex., 1407
 — tomb of Cambyses, 1045
 — Cyrus, 1037
 Pascal, Blaise, 3825
 — and classicism, 4042
 — Provincial Letters, 3807
 Paschal II, pope, 2655
 Paschen, Commander, in Litzow, 4847
 Pasenadi, king, at Buddhist fane, 1203
 Passarion, Athenian banker, 1552-53
 — slave origin, 1123
 Pasiteles, school of, 1919
 Passaro, Cape, battle off, 3387
 Passarowitz, treaty of, 3880
 Passan, Austrian capture (1712), 3892
 Passan, Treaty of, made law of Empire, 3480, 3633
 Passa, Crispin de, satire on ruffs, 3565
 Passover, origin of, 822
 Pascur, Louis, 3114, 5651
 Patagoma, sheep farming, 4328
 — times of early man, 2508
 Patalliputra, Chandragupta's conquest of, 1489
 Patents, Hollar's satire, 7721
 — Roman absence of legislation on, 2132
 Pater, Walter, on *de la Ronda*, 3236
 — Prophet of asceticism, 4518
 Paterius Vallius, literary work, 1895
 Paterfamilias, 1611, 1640
 Patesi, Sumnerian priest-king, 221, 450
 — Gudea of Lagash, 432, 435, 501
 Pathan, long-headed type, 224
 — wars with, 4450
 Patine, (translation of) S. Anthony, 380
 Patkal, Livonian patriot, 3762
 Patmos, Mycenaean settlement in, 787
 Patri potestas, 1610, 2102
 Patriarch, Apostolic, 2182-83
 — of Constantinople, 2018
 — of Nestorian church, 3537
 Patriarchal family, 312
 Patriarch of the Romans, title, 2487
 Patricians, 1253, 1420, 1043-53
 — in early Rome, 1809
 — ruling by, 1105
 Patrick, S., 2675
 — hell, 2676
 — knowledge of Scriptures, 2083
 Patriotism, clash with religion, 4802
 — Elizabethan, 3555
 — English ideas, 3490, 3503
 — in Japan, 4420
 — in Middle Ages, 3411-12
 — in primitive tribes, 313
 Patristic writings, account of, 2319
 Patroclus, bandaged by Achilles, 1178
 — and Bricks, 850
 — distributed cakes, 848
 Patronage, in Rome, 2230
 Patteon, Rev. J. C., 4030, 4640
 Paul, S., 2173, 2484
 — condemn Epileurans, 1763
 — epilepsy cured, 1098
 — Greek philosophy and, 1194, 2330
 — journeys, map, 2174
 — life scenes, 2432
 — martyrdom in Rome, 2181
 — opposition to Stoicism, 2082
 — on pagan gods, 2329
 — remains transferred to entombs, 2187
 — on silver chalice, 2177
 — uncertainty about, 2181
 — voyage to Rome, 407
 — writings to Corinthians, 2177-78
 Paul, Christian hermit, 2275
 Paul III, pope, charter to Jesuits, 3084
 — envoy to Luther, 3681
 Paul IV, pope, death, 3247
 — election, 3317
 — reforms, 3401
 Paul I, of Russia, assassination, 4097
 — and French Revolution, 1094
 — and Knights of S. John, 4185
 Paul, of Caen, at St. Albans, 2717
 Paul, of Samosata, bishop of Antioch, 2331-32
 Paul, the Deacon, on Gregory I, 2326
 Paul and Thecla, 2178
 Paula, companion of Jerome, 2324
 Paulinus, Bishop, 2459
 Paulus, Asmihus, in 3rd Macedonian war, 1681, 1694
 Paulus, L. Aemilius, decree, 1808
 Pausanias, Spartan, 1103, 1233
 — excesses, 1202
 Pausanias, traveller, on the Achaemen, 870
 — on the Gauls, 1510
 Pausilypon, Posilipo, Roman road, 2034
 Pavia, battle of (1525), arquebuses at, 2053
 — Francis I captured, 3310
 Paviland Cave, charm from, 250
 — self-preservation ritual, 356
 Pax Romana, 1860, 2120
 Pazzi, Francesco de', medallion, 3210
 Peace, Augustus aims for, 1809
 — Henicells, 3212, 4693
 — Dante and, 3204, 3212
 — League to enforce, 4917
 — Petrarch and, 3201, 3212
 — Roman de la rose, 1845, 2227
 Peace, The, play by Aristophanes, 1350
 Peace, Altar of, Rome: see *Arm Paris*
 Peacelike Penetration, meaning, 4092
 Peacock, W. L., history and, 14
 Peacock Throne, Delhi, 3780
 — looted by Nadir Shah, 3796
 — of Shah Jahan, 3770
 Pearl Mosque, at Agra, 3787, 3789
 Pearls, reason for value, 300
 Fear-tree Garden, Chinese dramatic academy, 3510, 3517
 Peasant, after Black Death, 3432
 — Egyptian, 469
 — in England (18th cent.), 4221
 — in Normandy, 2730
 — under feudalism, 2601-02
 — French, effect of revolution, 4137
 — Le Nain pictures, 3853-54, plate f.p. 3854
 — under Louis XIV, 3853
 — (19th cent.), 4153
 — taxation of, 4118
 — in Third Estate, 4117
 — German (18th cent.), 3909
 — quarrelling, 3454
 — medieval, 2671-73, 3126
 — duties, 2729
 — houses, 3426
 — in Normandy, 2600
 — Prussian, modern, 5071
 — in Roman Empire, 2230
 — Russian, under Michael Romanov, 3029, 3930
 — superstitions among, 350
 — See also Labourers: Villenango
 Peasants' Revolt (1381), 3098-3102, 3432
 — Wat Tyler's death, 3101, 3102
 Peasants' War (1525), 3311, 3312
 Pebble, painted, Azilian, 265
 Pequeur, Constantin, socialism, 4083
 Pectoral, Egyptian, 551
 Pedlar, 18th century, 4344
 Pedro the Cruel, King of Castilla, Alcazar built for, 3275, 3278-79
 — Black Prince and, 2098, 2099
 — murder of, 3009
 Pedro I, emperor of Brazil, 4209, 4322
 Pedro II, emp. of Brazil, deposed, 4575
 — satire, 4270
 Peel, Sir Robert, Corn Laws, 4434
 — and free trade, 4176
 — and Percival's work, 5045
 — statue, 2212
 Pegu, Great Britain annexed, 4460
 Peiho, capture of North Fort, 4394
 Peisistratus, Athenian tyrants, 1093
 — coins of, 1115
 Peisistratus, 1092-93, 1110-20, 1302
 — and Athenian water system, 1117
 — coin of, 1115
 — rise to power, 1045
 Pekah, king of Israel, 829
 Pelahiah, son of Menahem, 820
 Peking, Allied occupation in Boxer rising, 4081, 1663
 — Allies capture (1860), 4394
 — Altar of Heaven, 1222
 — arch of peace, plate, 4659
 — becomes capital, 3511, 3515
 — Confucian ceremony at, 1225
 — temple, 1222
 — formerly Cumbaluc, 2854-55, 3515
 — hall of Yung ho, 3515
 — legations captured, 4566
 — Macartney's embassy, 4053, 4654
 Peking—cont.
 — modern importance, 446
 — Nationalist capture (1928), 4903
 — Observatory, 2857
 — summer palace, 1657-58
 — temple of heaven, 1223
 — towers of the Climen Men, 1659
 Pelasgians, Greek aborigines, 801-02
 Pelous, hunting Chydonian boar, 988
 — nuptials of, 1611
 Pellet-bow, 279, 281
 Pelopidas, of Sparta, 1249
 Peloponnesse, The, Dorians in, 677, 983
 — interecine wars in, 1679, 1681
 — political division, map, 1674
 Peloponnesian League, 1092, 1380-90
 map, 1391
 — break-up of, 1399
 — peace with Athens, 1236
 Peloponnesian War, 1238-46
 — analogy to Great War, 1398
 — causes of, 402, 1390-98
 — privateering in, 1548
 — private used in, 1211
 Pelops, father of Atreus 790, 849
 Pelusium, Semacherib's advance against, 888
 — surrender to Octavian, 1793
 Pembroke, Countess of, costume, 3552
 Pembroke, Earl of (Strongbow), 2917
 Pembroke, Earl of (W. Marlescliel), 2802
 Pena Redonda, Roman camp at, 1899
 Penates, Roman deities, 1737, 1738
 Penda, king of Mercia, 222
 Penelope, in *Homeric story*, 811, 811
 840
 Penetration, in trench warfare, *du grand*, 4812, 4813
 Peninsular War, 4109-4, 4102
 — Spanish provinces in, 3013
 Penjich Incident, collision between Russian and Afghanistan, 1559
 Penn, William, founds Pennsylvania, 4007
 — grave, 4007
 — relations with Indians, 1001, 4019
 Penny, London, of Alfred the Great, 2197
 Pena, early Roman, 36, 2166
 Penhurst Place, gardens, 4302
 — hall, 3430
 Pentathlon, in Greek sports, 1323
 People's Commissars, Council of, 1955-56, 4907
 Peoples of the Sea, distribution, 795
 — Egyptian mercenaries, 682
 — Egypt invaded, 793-97, 817
 — Shidann, 793, 794
 People's Party, in U.S.A., 4513
 Peppi I, Egyptian king, 427, 178, 503
 Peppi II, Egyptian king, 127
 Pepl-nakht, declaration, 647
 Pepin, son of Charlemagne, 2418
 Pepin, of Aquitaine, 2421
 — son of, 2422
 Pepin the Old, 2206-70, 2351
 Pepin the Short, 2115, 2489, 87
 Pepin the Younger, 2351
 Pepper, trade in Roman times, 1988
 Pepperrell, Sir W., Louisbourg captured by, 3397
 Pepys, Samuel, on Catherine of Braganza, 3909
 — Charles II's landing, 3600
 — on Oliver Cromwell, 3731
 — wife, 3908
 Pequot War, with American Indians, 4022
 Pera, suburb of Galata, 2288
 Percival, Thomas, medical work, 5015
 Percy, Thomas, *Reliques*, 11, 4309
 Perdiccas, k. of Macedonia, 1239, 1401
 Perdiccas, Macedonian general, 1100-12
 Perdigon, troubadour, 2965
 Persekop, captured by Reds, 4963
 Pergamum, Acropolis, 1585, 1692
 — altar of Zeus, 1690, 1691
 — city state, 1493
 — dynasty, 1672
 — Greek theatre ruins, 1690
 — kingdom formed, 1410, 1693
 — library, 2166
 — river Sellinus canalised, 2052
 — Rome absorbs, 1708, 1705
 — Satan's seat, of Revelation, 1878
 — worship of Augustus in, 1877

Periander, tyrant of Corinth, 1389
 Pericles, Aspasia's influence over, 3085
 —Athenian imp. policy, 1233-37, 1397
 —bust of, 1239, 1332
 —colony founded at Thurii, 1538
 —death, 1240
 —defence of Anaxagoras, 1471
 —democratic system, 1266
 —fortifications of Athens, 1230, 1237
 —funeral speech, 1121, 1188
 —pan-Hellenic idealism, 1235, 1241
 —payment for State service, 1121
 —use of wealth, 1256
 —westward expansion opposed, 1545
 Perim, British occupation of, 4028
 Peripatetics, followers of Aristotle, 1462, 1486
 Periplus Maris Erythraei, 1492, 2169
 Periscope, submarine use, 4359
 Perjury, lawful in Mahomedanism, 2377
 Persian Period, 104-08, plate, *f.p.* 96
 Péronne, after German evacuation, 770
 —Irish monastery at, 2681
 Perotín, Descendit de Cechis, 2901, 2963
 —12th cent. composer, 2901-02
 Perry, Commodore, mission to Japan, 4395, 4411, 4520
 Persecution, Religious, alien to Hellenic ideas, 703
 —Christian: see Christians, Early
 —emperor Theodoric on, 2261
 —of the Jews, 1964
 Persennia, Persian city, 1134-40
 —Alexander the Great captures, 1407
 —like altars at, 1130
 —grand fairway, 1136
 —ground plan of ruins, 1135
 —Hypostyle Hall, Xerxes, 1137-38, 1140
 —palace of Darius, 1134-37, plate *f.p.* 1141
 —Protoplaea of Xerxes, 1138-39
 —reconstruction, 1133
 —relics from, 1132, 1140, 1141-42
 —rook tomb, 1143, 2117, 2316
 Persous, of Macedonia, 1680, 1691-82
 —Roman campaign against, 1694
 Persous and Moduus, by Canova, 4036
 —on Metope at Sclunus, 1053
 Pershing, John J., in Great War, 4770
 —in Mexico, 4780, 4731
 Persia, Ancient, 1125-43, 2300-10
 —Alexander conquers, 1407-08, 1420, 1847
 —army, 1141, 1431, 1434
 —archers, plate *f.p.* 1140
 —Aryan invasion, 347, 439
 —Asia Minor conquered, 1004
 —China, intercourse with, 2309
 —under Chosroes I, 2312
 —decline after Greek war, 1145
 —defeat at Granicus, 1431, 1432
 —at Salamis, 402
 —Egyptian influence, 1007
 —empire under Darius, 400-01, map, 401, 1125-43
 —fleet, 1434
 —Greece, peace with, 1248
 —war with, 1083, 1105, 1220-35, 1392
 —head of officer, 35
 —Iranian peoples in, 875
 —language and writing, 1060, 2318
 —literature, 2780, 2793
 —under Macedonian rule, 1132
 —Medes incorporated, 1141
 —Mediterranean dominated, 1535
 —Parthia absorbs, 1777
 —and Peloponnesian war, 1303
 —racial affinities, 308
 —religion, 638, 1128, 2307-09
 —and Judaism, 1053
 —and Roman Empire, 2089
 —rise and fall of Empire, plate *f.p.* 402
 —Roman ware, 2116-18, 2125, 2192, 2300
 —under Saesandis, 2307-18
 —Spartan war, 1247
 —See also Iran; Modce; and individual monarchs as Cambyses
 Porela, Medieval, Byzantine ware, 2264-67, 2272-73, 2312
 —Christianity in, 2310-11
 —divisions, 2782

Persia, Medieval—cont.
 —Saracen wars, 2345, 2347
 —trade, 2914
 —Turks conquer, 2782, 2784
 Persia, Modern, Peter the Great at war with, 3934
 —Russian pressure upon, 3040
 Persian Art, 1145, 2318
 —Egyptian influence, 1029
 —Greek influences, 1030
 —ornament and drinking horn, 1131
 —Sassanid, 2306, 2316-17
 —sculptures, 1142
 —See also Iranian; Scythians
 Persian Gulf, Alexander's plans for colonisation, 403
 —coasts of, 465
 —corals from, 458
 —Great Sea identified with, 2107
 —original extent, map, 512
 —recession of, 455, 511
 Persians, The, drama by Aeschylus, 1349
 Persius, satires, 1894
 Perspective, lack in Egyptian art, 501
 Perthes: see Boucher de Perthes
 Perthuis, Roman emp., 1970-77, 1979
 Perugia, municipal palace, 3312
 Ferrigno, angel of, 1560
 Fern, Cabot's map, 3540
 —under Castilla, 4332
 —Central Railway, 4334
 —Olean war, 4323, 4331
 —early contacts with Polynesia, 2001
 —geographical conditions, 2501, 4320
 —Inca civilization, 3361, 3378-88
 —head-dress, plate *f.p.* 3370
 —Indian with blowpipe, 3371
 —megalithic buildings, 2593
 —modern history, 4332
 —mummification in, 2601, 3386, 3388
 —peoples, early, 2501, 3370
 —Pizarro's conquest, 3305, 3388
 —pottery, 2580
 —pre-Inca civilizations, 2501-03
 —quippu, use of, 1063, 3373
 —racial differentiation, 308
 —yellow race in, 315
 —See also Inca
 Persia, sicgo by Augustus, 1730
 Pescara, Margnis, tactics, 2053-54
 Pescennius Niger, 1977-78
 Peshawar, ancient Gandhara, 1497
 —Kankisika's capital, 1991
 Pessinus, temple of Great Mother, 1761
 Pestalozzi, J. H., Swiss educationist, 4075
 Pesth, in 1848, 4368
 Pestilence: see Plague
 Pestle, Egyptian, 637
 Pet, Arthur, search for N.E. passage, 3570
 Pétaín, Mershel, 4774, 4775
 Peter, S., 2481
 —in medieval schools, 3017
 —Romans taken to catacombs, 2187
 —on silver chalice, 2177
 —statue on Trajan's column, 1969
 —in Vatican Basilica, 2482
 Peter, king of Aragon, 2331
 Peter I (the Great), tsar of Russia, 3761, 3880-87, 3932, 3935
 —achievements, 3933
 —Azov captured, 3764
 —in England, 3937
 Peter II, tsar of Russia, 3888
 Peter III, tsar of Russia, 3902, 3941
 —Germanism of, 3939
 —married Catherine the Great, 3939
 —Sophia of Anhalt-Zerbst, 3938
 Peter, king of Serbia, portrait, 4532
 Peterborough, cathedral, 2393
 —west front, 2339
 Peter of Courtenay, 2822
 Peter Fullo, bishop of Antioch, 2340
 Peter Martyr, sent to England, 3681
 Peter the Hermit, 2652, 2804
 Peter the Norman, Henry III's tomb, 2778
 Peter of Toulouse, heretic, 3027
 Petere, Jacob, che-ka official, 4959
 Peterwerdein, Turks besiege, 3580
 Pétion, mayor of Paris, 4086
 Petit Andelys, Château Gaillard, 3423
 Petition of Right, 3664

Petit-Morin, Neolithic figure from, 270
 Petra, altar of high place, 825
 —canalisation of river, 2052
 Petrarch, Francesco, 3224, 3225
 —desire for peace, 3204, 3212
 —Renaissance spirit, 3216
 —on Venice, 3036
 Petreus, death, 1787
 Petrograd, becomes Leningrad, 4974
 —captured by Reds, 4954
 —derelict café, 4958
 —mob outside Winter Palace, 4947
 —Telephone Exchange seized, 4953
 —See also Leningrad; St. Petersburg
 Petroleum, in U.S.A., 4497
 Petronel, weapon, 2954
 Petronius, 1893, 1896, 2003
 —language of Satyricon, 1883
 Petrossa Treasure, 2222
 Petrus de Hibernia, S. Thomas Aquinas and, 2639
 Petsofa, statuettes from, 601
 Pentinger Table, Roman map, 2246
 Evensay, Caesar's landing, 2714
 —fairs, 28
 —Norman castle ruins, 2711
 —Roman stronghold, 2714
 Petrie, Sir W. M. F., on Akhnaton, 742
 —discoveries at Sinai, 1077
 —on Egyptian glass, 703
 Phaedrus, fablia, 1894
 —Instructa Cicero, 1909
 Phaestus, Creta, 762, 761, 770
 —palace, 762, 763, 839
 Phaestus Disk, 605, 607, 765, 1065
 Phalaris, Mesopotamian, 526, 527
 —recent comparisons, 4707
 Phalaris, tyrant of Agragus, 1094
 Phalaris Bay, 1259
 Phases of Hellenism, 1087
 Pharaoh, Egyptian ruler, 424
 Pharisees, 1934-55
 —teaching, 1900-61
 Pharmacopoeia of Dioscorides, 2077
 —medieval, 3454, 3456
 —See also Meteria Medica
 Pharmacy, social centre, Germany, 3972
 Pharnabazus, Persian satrap, 1245-47
 Pharnaces, king of Pontus, 1777-78
 —defeat by Caesar, 1780
 Pharos, Alexandria, 1534, 1538
 —on copper coin, 1538
 Pharselus, battle of, 1722, 1727, 1785
 Pheidias, Parthenon frieze, 1299, 1276-78
 —statue of Athena, 1273, 1370-78
 —of Zeus, 1372, 1370
 Phelps, Sir Robert, on liberty of conscience, 3722
 Pherae, Greek state, 1403
 Philadelphia (Asia Minor), covering of river in, 2052
 —nymphaeum or fountain, 2053
 Philadelphia (U.S.A.), congress at, 3905, 4031
 Philae, temple of Isis, 2038
 Philaides, Attic family, 1042
 Philaret, f. of Michael Romanoff, 3929
 Philetæus, king of Pergamum, 1410, 1685, 1538
 Philhellen: see Aristobulus I
 Philip, duke of Anjou: see Philip V of Spain
 Philip, duke of Orleans, regent of France, 3379, 3382
 Philip (the Ambian), Roman emperor, 2174, 2115
 Philip I, king of France, 2040
 Philip II (Augustus), king of France, 2747
 —in crusade, 2742-43
 —English wars, 2826
 —policy, 2834
 —relations with Pope, 2746, 2747
 —reputations wife, 2746-47
 Philip III, king of France, reign, 2839
 Philip IV (the Fair), king of France, 2831, 2833, 2905-08
 —and Boniface VIII, 2832, 2846
 —and Edward III, 2831-32, 2938
 —Flemish wars, 3031
 —and Hanseatic league, 3057
 —seal, 2833
 —Templars exterminated, 2906

- Philip II**, king of Macedon, 1402-06
 —assassination, 403, 1406, 1425
 —coin, 1403, 1523
 —comparison with Napoleon, 411
 —Demosthenes and, 1360
 —Greece conquered, 402-03
 —wife Olympias, 1405-06
Philip V, king of Macedon, 1677, 1678-81
 —accession, 1584
 —Hannibal aided by, 1585, 1590
 —Roman wars, 1677-78, 1687
Philip II, king of Spain, 1550-60, 3579
 —and Elizabeth, 1468-70, 3175
 —English policy, 1475-76
 —Franco-Spanish war, 1462
 —heresy attacked, 1450
 —marriages, 1460, 1463
 —Netherlands campaigns, 1467-68, 1471-74
 —portrait on peace medal, 1462
 —portraits, 1460, 1482
 —and Stueley's rebellion, 1555
 —and William the Silent, 1467, 1473
Philip III, king of Spain, truce with United Provinces, 1586
Philip IV, king of Spain, 1640
Philip V, king of Spain, 1700, 3880
Philip Arridaeus, 1409, 1412
Philip the Eucuch, Sicilian admiral, 1608
Philip the Bold, duke of Burgundy, 1606, 8128
Philip the Good, duke of Burgundy, 1679, 8129
 —and Golden Fleece, 1679
Philip of Swabia, German king, 1746-47
Philippa of Hainaut, and Calais burghers, 8003
Philippi, battles of, 1791
Philippus, 1300
Philippus, emperor, 1354-55
Philippine Islands, Spain annexes, 1350
 —United States and, 135, 4520, 4576
Philippopolis, Gothic siege, 2116
Phlistia, allegiance to Egypt, 882
 —conquered by Assyria, 885
 —influence on Jewish pottery, etc., 813
Phlistines, Egyptian archers destroy, 682
 —Etruscan resemblance to, 793
 —government, 700
 —and Israelites, 675, 677, 813
 —in Palestine, 809, 813
 —among Peoples of the Sea, 675
 —pottery from Beth-Shehem, 811
 —Rameses III defeats, 674, 795
 —Saul killed by, 816
 —trook barred by Shirdanu, 796
 —and use of iron, 804
Phillimore, Lord, and League of Nations, 4919
Phillimore, John S., translation of Rutilius, 2225
Phillip, Arthur, founder of Sydney, 4910
 —voyage to Botany Bay, 4598
Philo, admiral of Ptolemy I, book on Ethiopia, 1169
Philo, Jndaeus, 1494, 2171
Philo, Q. Publius, proconsul, 1653, 1804
Philoctetes, play by Sophocles, 1352
Philodemus, Epicurean writer, 1909
Philolaus, theory of the earth, 1473
Philopoeian, leader of Achaean League, 1678, 1681
 —victory at Mantinea, 1585
Philosopher, meaning of word, 1451
 See also *Philosophy*
Philosopher's Stone, search for, 152, 359, 364
Philosophes, in 18th cent. France, 4123
Philosophy, Alexandrine School, 2171
 —Arabian, 2533, 3291
 —Aristotelian: see *Aristotle*
 —in colonial America, 4018
 —early Christian, 1329-30
 —in the 18th and 19th centuries, 4521
 —effect of Great War on, 4861
 —Greek, 1451-66, 1569, 1903-10, 2171
 —of history, 5085-91
 —in India, 237, 1203, 1206
 —influence of Greek philosophy, 2005
 —modern idea, 1902-03
 —paganism and, 1899-1910
 —Platonic, 1458
Philosophy—cont.
 —in pre-Revolution France, 4123
 —Roman influence, 2247
 —of science, 5005-12
 —Stoic: see *Stoicism*
Philotes, commander of cavalry, 1450
Phipps, James, and vaccination, 5038
Phipps, Sir W., attack on Quebec, 4024
Phocaean, destruction of, 1180
Phocaean, emigrants, 1091, 1094
 —explorations and settlements, 1058, 1179
Phocas, emperor, 2272, 2273
Phocion, Athenian patriot, 1412, 1113
Phocis, Greek state, 1399, 1403
Phoenice, Peas of 1677
Phoenicia, Alexander conquers, 1438-39
 —capitalism in, 1182
 —commercial interest in, 875
 —Egyptian influence, 425, 467, 814, 1007
 —Egypt repudiated, 675
 —Greek conflicts, 1094
 —literature, 806
 —Marius visits, 831
 —revolt against Persia, 1418
 —Thucydides III in, 561-62
 —Tight-Fishes I subdues, 676
 —wealth of maritime cities, 674
Phoenician, Art, 1007, 1008, 1027, 1029
 —early, 805
 —Egyptian influence, 1007, 1008, 1011, 1026
 —glass, 1630
 —imitativeness, 1007, 1026-28, 1027, 1029
 —sarcophagi, 1011
Phoenicians, 805, 1613
 —in Africa, 1167, 1180, 3391
 —Atlantic exploration and trade, 1630
 —Carthage: see *Carthage*
 —charms and amulets, 1627
 —colonization, 1062
 —Egyptian relations, 1012
 —exploration and settlements, 1167, 1169, map, 1176, 1177, 1180
 —glass work, 1630
 —Greeks as rivals, 1149-50
 —in Homeric poems, 1150
 —religion, 1622
 —ship, 7th cent. B.C., 805, 1535
 —in Sicily, 1091
 —trade in Heroic Age, 814
 —methods, 1640
 —writing originated, 801
 See also *Carthage*
Phonetic system, 298, 1061
Photograph, Edison's, 4706, 4710
Phorcy, in command of Phrygians, 861
Phormio, Athenian commander, 1240
Phosgene, for poison gas, 4708
Photius, patriarch, 2425, 2031
Phraates I, of Parthia, 1816, 1939
Phraortes, king of the Medes, conquered by Darius, 1090
Phraortes, or *Fravartish*, king of the Medes, 1136
Phratris or *Phratra*, 1373
Phrygia, kingdom of, annihilated by Chimerians, 890
 —and Greek states, 1002-03
 —Hittite influence on art, 733
 —mystery religion, 2086
 —rock tombs, 1002
 —Phrygians, 882-3
 —allies of Priam, 855
 —in Asia Minor, 674
 —in Trojan War, 861
Phrynicus, playwright, 1347
Phthiotis, home of the Helles, 1033
Phylakop, fortification, 758
 —frescoes from, plate 755
Physios, Aristotelian theories, 1403, 1482
 —philosophical, expansion, 5005
 —and psychology, 5012
 —symbolism in, 5011
Physioerats, 4127
Physiology, Erasistratus on, 2084
 —Galen's theories, 2078, 2080
 —Greek views, 2004
 —influence on Greek philosophy, 2005
Phytosphre, 333
Plankh, Ethiopian king, 483, 886, 1610
Plave, Austrian offensive (1918), 4781
Picasso, Pablo, and cubism, 5029, 5030
Piccolomini, imperialist general, 3653
Piccolomini, Aseneas Sylvius: see *Pius II*, Pope
Piecent, tribe, incorporation with Rome, 1608
Ploekering, William, armourer, 2941, 2943
Ploekering, William, publisher, 3197
Ploeking, 4677
Pictograph, American tribes, 2571
 —early Egyptian, 564
 —forerunner of alphabet, 260, 297, 298
 —Hittite, 563
 —Indo-Sumerian, 450
 See also *Alphabet*; *Writing*
Plots and Seots, 2424
Plummas, in Latin religion, 1739
Pisasa, possibly Phidians, 704
Pien-liang, 2561, 3515
Pierleone, family, 2778, 2776
Pierleone, Peter: see *Anacleus II*
Pierr, of Dieppe, breacher, 3811
Pierrefonds, castle, 3350, 3352
Piers Flowman, Vision of, 3027
Pietism, in Germany, 3046
Pietro Orsola II, Doge, 2751
Pie, ancestry, 132, 133
Pikeman, armour, 2937, 2955
 —of Civil War period, 3728
 —Swiss, 2947-48, 2949
 —tactical use of, 3613
Pilate, Pontius, 1057
Pho-dwelling: see *Lake dwellings*
Pilgrimage, Mahomedan, 3271
Pilgrim, 1797, 2805, 2811-12
 —from Europe to Palestine, 2811
 —Irish, 2887
Pilgrim Fathers, Allyn House, 3518
 —arrive at Plymouth (Mass.), 4006
 —in Plymouth, Mass., 3519
Pilgrim's Progress, frontispiece to 4th edition, 3711
Pillar hermits, or *Anchorites*, 2276
Pillion-riding, 3452
Pillow Lava, 94, 95
Pilnitz, Declaration of, 4085
Pildown Man, 148, 149-52, 245
 —compared with *Pithecanthropus*, 158, 177
 —weapon cut from elephant's thigh bone, 152, 245
Pilumnus, in Latin religion, 1739, 1740
Pinarus, river, 1438
Pindal, cave-drawing of elephant, 190
Pindar, poet, 1192
 —lyrical odes, 1341
Pindaris, Indian brigands, 4450
Pine, John, Arundel tapestries, 3515
Pinerolo, given up by Louis XIV, 3710
Pinturicchio, Aeneas Sylvius, 3111
 —election of Pius II, 3322
 —fresco, Alexander VI, 4249
Piracy, Barbary, 3315
 —Crete captured, 2424
 —Greek precautions against, 1017
 —Homeric heroes 990
 —in Mediterranean, 1150, 1540, 3311-15
 —Moorish, 3409, 3528
 —punishment of Dionysus for, 1150
 —Romans suppress, 1518, 1561, 1733
 1776
 —16th and 17th cents., 3501-17
Piraeus, 1250
 —fortifications, 1236-37, 1248-9
Pirandello, Luigi, 5020, 5021
Pir Mohammed, grandson of Tamerlane, 3175
Pisa, 2755-59
 —Cathedral and Leaning Tower, 2755
 —Florence captures, 2016
 —Ghibelline party, 2759, 2761
 —medieval trade, 2016
 —pulpit, 2239, 2240
Pisae, Fern, Inca remains, 3382-83
Pisani, Vettor, Venetian commander, 3034
Pisano, Niccola, pulpit at Pisa, 2239, 2240
Pisoo, Valley of, Inca palace, 3383
Pisto, plotted against Nero, 1895
Pistol, use by cavalry, 2964
 See also *Revolver*
Pitfall, of Palaeolithic hunters, 138

Pit graves, La Tène III, 1521

Pithecanthropus, 155, 156-9
—brain compared with gorilla, etc., 156, 153
—erect posture, 159, 184

Pithom, Israel helped to build, 815
Pitt, William, the elder: *see* Chatham
Pitt, William, 3911

—on abolition of slavery, 4599
—anti-Russian, 3939
—and British Empire, 4595
—on Canada Act, 4597
—death, 4191
—driving Union coach, 4109
—and European condition, 4099
—and India Act, 3905
—orator, 4212
—and parliamentary reform, 4431
—lakes office, 3910
Pittsburg, railroad strike (1877), 4516
Pituitary Gland, influence on growth, 176

Pius II, pope, 3138
—election, 3329
—learning and culture, 3234, 3322-23
—presenting *Lemora* at Portugal to Frederick III, 3141
—visit to Florence, 3244
Pius V, bull against English Protestants, 3469
—excommunication of Elizabeth, 3359, 3551

Pius VI, Napoleon and, 4182
Pius VII, dethroned by Napoleon, 4193
Pius IX, death, 4568
—flies to Naples, 4308
—liberal reforms, 4275
Pizarro, Francisco, conquest of Peru, 3305, 3388

Plaoe, Francis, on Christianity, 4435
—labour reformer, 4609, 4670
Place-names, in the British Isles, map, 302

Placidia, Galla: *see* Galla Placidia
Plague, epidemic disease, 3103-19
—dead on, 5042
—in Semmacherli's army, 830, 888, 3103
See also Black Death; Epidemic Disease

Plain, The, partly in Greece, 1119
Plain-song, in music, 2939
Planck, Max, portrait, 5004
Planeta, Munatius, 1300
Planets, birth of, 43, 70, 70
—in Greek mythology, 59
—Greek theories, 2081
—Laplace's theory, 50
—orbits and relative sizes, 75
—revelative masses, 76
—satellites, 73, 74
Planing machine, introduction, 4358
Plantagonet, family, 2054, 2799
Plantation System, in America, 4013, 4496

Plantin, Christopher, printer, 3194
Plants, classification, by Linnaeus, 3829
—first appearance, 98
—grown artificially, 87, 89
See also Botany; *Mutaria Medica*
Plassey, battle of, 3890, 3900, 3904
Plataea, nily of Athens, 1094, 1097
—battle of, 1103, 1229, 1232
—siege in Peloponnesian War, 1241
Plate, river, opened, 4327
Platea (Island), Greek settlement, 1058
Platea (Roman Broadway), 2056, 2060
Plate armour, 2933, 2938
—discarded, 2938
—evolution, 2928-32
—on monumental brass, 2928

Plato, 1358-59, 1458
—astronomical teaching, 1481
—on athletes, 1320
—on Atlantis, 2507
—beliefs about God, 1400-01
—biological works, 1480
—compared with Aristotle, 1462, 1480
—on creation, 47, 1905
—dialogues of, 1450, 1458
—doctrine of Ideas, 1400, 1479
—as economist, 388
—on the Egyptians, 500
—Fourth Gospel influenced by, 2330
—on government, 1122
—laws of, 1401

Plato—cont.

—mathematics of, 1480-81
—and medicine, 5010
—and medieval schools, 3017
—mysticism of, 1459
—on painting, 1329
—philosophy of, 1458, 1903
—on physics, 1463
—on the State, 1401
—teaching in his Academy, 1459
—Timaeus of, 1461
—translations, 1362, 2704
Plato, abbot of Sacconi, 2023
Platonism, and Christianity, 2097, 3324
—later, 1904, 2904
Platt, Thomas C., and Roosevelt's presidency, 4714

Plantios, Novios, Ficorini cista, 1913, 1914
Plautus, 1759-60, 1880
—influence on modern comedy, 2247
—marriage scene from *Casina*, 1885
Playing cards, introduction, 3446, 3457
Platenna, 1646-53, 1810, 1822
—disabilities removed, 1429
—games of, 1828
—under Roman Empire, 2002
—tangles with patricians, 1105, 1253, 1613-53
See also Graechi; Rome, the Republic

Plebisette, in Rome, 1052
Pleistocene Period, 132-33, 147, 160
—diagrammatic plate, f.p. 220
—Hedberg Man, 145
—Mediterranean Sea in, 589
Plekhanov, Russian revolutionary, 4040
Plenitude Potestatis, transference of, 3343
Plesiosauro, description, 130
Plorna, siege (1876), 4897
Pliny, the Elder, Natural History, 1890
—on Roman dominion, 2051
Pliny the Younger, at Basilica Julia, 2013
—and Christiana, 2178, 2183
—Letters of, 1897
—and Trajan, 2183

Pliocene Period, 44, 132-33, 154, 160
—climatic changes and life in, 135, plates f.p.p. 96 and 220
—colths from Suffolk, 153
—estuary finds, 162
—fauna, 135
—flint implements, 153
—man in, 152-59
—Pithecanthropus, 155
—rivers, 152

Pliphiathecus: *see* Gibbon
Plombières, conference at, 3615, 4377
Plotina, wife of Trajan, 1903, 1969
Plotinus, 2094-95
—on Gnosticism, 2092
—Indian influence on, 1596
Plough, Egyptian, 487, 488
—evolution from hoe, 285, 346, 035
—importance of invention, 345
—with seeder, Mesopotamia, 581
Ploughing, medieval, 2669, 3078
Ploughman, Anglo-Saxon, 2460
Plumbing, Roman examples, 2044
Plutarch, 1362
—on Alexander the Great, 1424, 1425
—on Celtic women, 376
—on Issues, 1435
—on religion, 1902, 2094

Plutus, play by Aristophanes, 1350-57
Plymouth, estuary formed, 28
Plymouth, Mass., Allyn House, 3548
—Pilgrim Fathers at, 4006
Plaheisi, plan of house, 747
Pneuma, Eristratus' theory, 2065
—Galen's theory of, 2078
Pneumatika, of Hero, 2089
Po, valley of, 631
Poohpatas, and John Smith, 3547
Poohsteo, Aztec guild, 3371
Po Chiü, Chinese poet, 2555
Poderst, 2762
Poe, Edgar Allan, 4313, 4314
Poe, Greek, portrait, 1343

Poetry, Aristotle and, 4035
—in Augustan Age, 1899
—in Babylon, 530
—Egyptian attempts, 665

Poetry—cont.

—Elizabethan, 3561
—Greek influence on, 1560-61, 2344
—lyric, Greek and modern, 1312
—modernist, 5018-20
—rhyme introduced, 2244
—Roman influence, 2244
—Victorian, 4538
See also English Literature; Latin Literature, etc.

Poincaré, R., Baldwin and, 4892
—at Lille (1918), 4783
Point, Monsterial flint tool, 215, 246
Poison, on arrows and darts, 251, 252
—used in fishing, 281

Poison gas, agent of destruction, 4792-94, 4815
—first use by Germans, 4755
—future of, 4824
—Sargent's 'Gassed', 4794
Poisson, Jeanne Antoinette: *see* Pompadour, Mme de
Poitiers, battle of (732), 2361, 2486
Poitiers, battle of (1356), 3003, 3091
—English cavalry at, 3091
Poitou, rebellion in, 4185
Pojarsky, Prince, Russian patriot, 3928
Pola, Roman amphitheatre, 2015
Polaaco, Loyola's secretary, 3655
Poland, German invader (1914), 4751
—kingdom, elective crown, 3884
—in 1815, 4257
—foundation of, 2510
—government of, 3911
—Gustavus Adolphus and, 3031
—Hungary united with, 3005, 3124
—Lithuania united with, 3008, 3061
—partitions, 3878, 3912, 4090
—Russian interference, 3481, 3919
—succession difficulties, 3008, 3751
—modern republic, 4877
—Bunuel collapse, 4916
—independence secured, 4919
—Vilna ceded to, 4881
—nationalism, 3605
—rebellion of 1830, 4265
—rebirth, 3610
—as Russian province, 4266
—Slavs original habitat, 2474
—war with Russia (1920), 4880, 4887

Poldau, wireless station, 4703
Polemio, philosopher, 1903
Police, English, and strikers, 4909
—Moorish, in Spain, 3284
Poliens or Polias, title, 1373
Polignac, Jules de, French minister, 4267, 4269
Polish Succession, War of, 3885
Political Register, Cobbett's paper, 4282
Political Thought, development, 3693-3700
—medieval, 3021
Politics, feminine influence, 3983
—Greek ideas, 1567
—tribal spirit, 314
Pollen, cause of ophthalmia, Babylonia, 582

Pollio, Asinius, Roman library, 1393
Poll-tax, in England, 3098
—French, collection, 3851
—in India, 3173
—Mahomedan, 2530, 3165, 3781
Pollux: *see* Castor and Pollux
Polo, in Byzantium, 2023
—origin, 354
—in Persia, 2314
Polo, Marco, 2854
—on Chinese census, 3509
—shipping, 3514
—and Kublai Khan, 2854, 2857
—lands at Ormuz, 2914
—omissions, 3505
—travels, 2851, 2914, 3037

Polos, Babylonian invention, 977
Polotsky, Simeon, Russian scholar, 3932
Poltava, captured by Whites, 4902
Polyandry, 369
Polybius, Roman historian, 23
—on the Gauls, 1510, 1608
—geographical records, 2074
—on Punic Wars, 1345
—on the Roman army, 1722, 1725-26
—character, 1899
—state, 1593, 1706

Polyoarp, martyrdom, 2184

Polycleitus

Pottery

Polykleitos, canon of perfection, 1195, 1300
 —theatre at Epidaurus, 1348
Polyrates, tyrant of Samos, 1088, 1092
Polyeuctus, Patriarch of Constantinople, 2624
Polyramus, 380, 850
 —in Egypt, 549
 —under the Franks, 3283
Polygonal Masonry, at Mycenae, 773
 —pre-Inca and Inca, 2593, 2597, 3379
Polynesia, annexed by Britain, 4639
 —contact with prehistoric America, 2801
Polyneians, cowries worn by, 361
 —early voyages, 2508, 2601
 —New Zealand cultures, 2570
 —wood-carving, 291
Polyphemus, 847, 851
Polyphony, in music, 2000, 2062
Polyperchon, genl. of Alexander, 1412
Polythetes, 637-56
 See also Greek Religion; Roman Religion
Polyxena, as virgin martyr, 872
 —sacrifice of, 1270
Pomander (Pomum Ambro), use in plague, 3116
Pombal, Marquess of, 3080, 3915
Pomern (Gib), at Jutland, 4852
Pomona, goddess, statue, 1744
Pompador, Mena, de, and Frederick the Great, 3899
 —portrait, 367, plate f.p. 3983
Pompanozzi, Pietro, 40
Pompeii, amphitheatre, 1814-15, 2054-56
 —death cast of victim, 1853
 —destruction of, 1858-60
 —dining-table, 2000
 —excavations, 25, 1858
 —frescoes, 1804, 1933-36, 1937-39, 2014
 —House of the Faun, 1817, 1938
 —of Pansa, 1818
 —mosaic from Cicero's villa, 1829
 —priestess Eumachia, 371
 —shrines of household gods, 1737
 —statue of the nymphs, 2019
 —Stabian baths, 1816
 —villa of Cornelius Tacus, 2008
 —wall painting from Lucius Frons's house, 1819
Pompeius, Gnaeus: *see* Pompey
Pompeius Rufus, consul, 1772-73
Pompeius, Sextus, 1791-92
 —consulting wise woman, 3260
 —defeated by Agrippa, 1733
 —opposition to Caesar, 1786-88
Pompeius Trogus, Latin history, 2169
Pompey the Great (Gnaeus Pompeius), 1775-86, 1835-36
 —Jerusalem conquered, 1955
 —marriage, 1781-82, 1827
 —military tactics, 1722, 1727
 —at Pharsalus, 1722
 —policy, 1871
 —portrait, 1775
 —theatre built, 1887
 —visits Poseidonias, 1005
Pomponia, wife of Agrippa, 1840
Pomponia, wife of Quintus Cicero, 1827
Pomponia Graecula, Roman lady, 2177
Pomponius Atticus, Epicurean, 1900
 —equestrian rank, 1820
Pomponius Mela, Geography, 1805
Pondicherry, 3880, 3806
Poniatowski, Stanislaus, king of Poland, 3811
Pono of Chaptamil, ironbadoir, 2965
Ponte, Giovanni da, built Rialto bridge, 3043
Pontifex Maximus, 1807, 1750, 2107
 —Augustus as, 408, 1865
 —Constantine as, 2180
 —palace of, 1750
 —title assumed, 2482
Pontiff: *see* Pope
Pontifical, service book, 2962
Pontius, Samnite victor, 1420
Pontus, under Kleziwadna, 728
 —pirates in, 3802
 —Roman province, 1777
Poole, smugglers at Custom House, 4212

Poon, Britain annexes, 4450
 —headquarters of Hindu dynasty, 3797
Poor, medieval, 3430, 3438
 —in Tudor England, 3400-01, 3577
 See also Peasantry; Unemployment
Poor Law, expenses, 4286
Pope, antipopes, 3008, 3069-70, 3185, 3136
 —coronation, 2480
 —modern position, 4867
 —Napoleon restores, 4007
 —as Pontifex Maximus, 2482
 —position acknowledged, 2270
 —in satirical cartoon, 3631
 —tried by Elizabeth, 3556
 —vestments on mosaic, 2180
 See also Papacy and under name of various popes, e.g. Gregory VII
Pope, Alexander, 4044
 —and contemporary society, 4041
 —Essay on Criticism, 4043
 —and formal gardening, 4301
 —and Leibniz doctrine, 4049
 —Tape of the Lark, 4015
 —translation of the Hind, 1339
Popilius, Laenas, Roman envoy, 1695
Popilius, Marcus, 1708
Popol Vuh, Sacred Book, 2587
Poppea Sabina, wife of Nero, 1856
Population, Chinese, 14th cent., 3509
 —problem, 4415
 —effect of war on, 4687
 —of 18th century England, 4217, 4088
 —geology and, 78, 86
 —increase in Europe, 5070
 —reasons for, 200, 210, 311
 —in U.S.A., 4500
 —of Japanese Empire, 4424
 —of Latin America, 1321
 —problem of, 5083
 —regulation of, 438
 —of U.S.A., present time, 5070
 —world statistics, 301
Populism, in U.S.A., 4513
Porcelain, Chinese, Mauchin, 4660
 —Ming, 3518, plates f.p.p. 3518-19, 3524
 —Song Period, 2563
Porci, family, laws passed by, 1799
Port-butcher, in ancient Rome, 7824
Porphyry, attack on Christianity, 2170
Port Arthur, blockade, 4607, 4668
Porto Farina, naval action at, 3806
Port Jackson, site of Sydney, 4610-11
Port Natal, first steamer at, 4618
 See also Durban
Porto Novo, Italdar Ali rental at, 4445
Porto Rico, annexed by U.S.A., 4339, 4579
Port Phillip, gold diggings, 4610
Portraiture, Egyptian, connexion with after-life, 1193
 —success in, 1020-22, 1024
 —Etruscan, connexion with after-life, 1103
 —genius for, 1011, 1012, 1920
 —Greek, idealism in, 1332, 1334
 —Mogul, genius for, 4483, plate f.p. 3779, 3790, 3791
 —Roman skill in, 1709, 1920, 1923, 1025, 2230
 See also under art of specific countries, e.g. Roman Art
Port Royal, 3806-08, 3867
 —Miro Angélique Arnauld, 3866
Port Royal (Canada), captured by British, 4025
Portsmouth (U.S.A.), Treaty of, 4423, 4568, 4670
Portsmouth, Duchess of: *see* Quér-ouaille, Louise de
Portugal, African possessions, 3396, 3398, 3401
 —arms on Moorish pottery, 3264
 —Beresford in, 1201
 —and China, 3306, 3325, 4052
 —empire decays, 3539
 —and England, 3057, 3070
 —exploration work, 410, 3131
 —history, 15th cent., 3193
 —independence secured, 413
 —in India, 410-11, 3398
 —and Japan, 3306
 —joins allies (1703), 3757
 —kingdom founded, 2000

Portugal—*cont.*
 —language, 2241
 —maritime discoveries, 3295, 3526-31
 —Moors driven from, 3528
 —piracy suppressed, 3528
 —Pombal's reforms, 3015
 —primitive man in, 214, 206
 —soldier (16th cent.), 3497
 —S. American empire, 4320
 —and Spain, 3479, 3597, 3613
 —and W. Indian slave trade, 4593
Portuguez, Bartolomeo, itinerant, 3812
Portus Augusti, port of Rome, 1874
Porus, Alexander and, 1408, 1441-45
Poseidon, characteristics, 850, 1361
 —on coin, 1452
 —identified with Neptune, 1752
 —with Zeus, 1366, 1872
 —on Parthenon frieze, 1379
Poseidonia (Paestum), temples, 1054-5
Poseidonians of Apamea, on Gauls, 1511
 —philosophy, 1905
Possipio, tunnel road, 2031
Postal Service, Hanscatic, 3000
Poster, French Revolution, 4145
Post-impressionists, 6023, 6024-29
Post Office, General (London), air mail on, 4815
Postumus, Roman general, 2117, 2120
Potash, distillation, 1007
Potidaea, and Athens, 1238-40
Potsdam, Frederick II's palace, 3982
Potter, and his dog, proverb, 582
 —Egyptian, plate f.p., 553
 —Greek, 6th cent., 394
 —Pueblo Indian, 2673
 —W. African, 286
Pottor's wheel, Cells adopt, 938
 —not used in prehistoric America, 2573
 —Trojan use, 850
Pottery, American, early, 2572-73, 2580
 —archaeological deductions from, 30-32, 38, 763, 456-58
 —Arretine, 1910, 1941
 —Aztec, 3377
 —Canaanite style, 997
 —Carthaginian, 1020, 1021
 —Chigi jar, 998
 —Chinese, Han, 2098, 2102, 2105
 —Ming, 3512, plate f.p.p. 3510, 3510
 —prehistoric, 2386
 —Song, 2558-59, 2563
 —Tang, 2552, plate f.p. 2552
 —cord ware, 2382
 —Corinthian, 995, 997
 —Cretan, Neolithic, 595
 —Cycladic, 808, 610
 —dawn of, 270
 —decoration of, 287
 —Jella Roubia ware, 2230, 2239
 —Early Minocan, 596-8
 —Egypt, ancient, 493, 480, 492, 697
 —Iceni, 1020-27
 —history of, 554
 —Neolithic grave, 618
 —Etruscan, 1162, 1164, 1170
 —first appearance, 219
 —Gaulish, or Celtic, 1222
 —Greek: *see* under Greek Art, vases
 —Hispano-Mauresque, 3261, 3282
 —from Hydrabad cist grave, 462
 —Inca, 3388
 —Italian Renaissance, 3237
 —in Japan, 2380, 2382-83, 2387, 2388
 —Late Minocan, plate, 751
 —Maya, 2590
 —Mexican, early, 2588
 —Middle Minocan, 600, 603-9, plate f.p. 609
 —Mycenaean, late, 754, 789, 905
 —Nankratia, 1014-15, 1610
 —painted: *see* Painted Ware Culture
 —Peruvian, 2580
 —possible origin, 287
 —pre-Inca, 2580, 2593
 —primitive methods, 287
 —proto-Chimu, 2580, 2581
 —proto-Nasca, 2580
 —proto-Corinthian, 996, 998
 —Pueblo Indian, 2673
 —red ware of 5000 B.C., 591
 —Rhodian jar, 497
 —Samian or Gullio, 2132

Pottery—*cont.*

- Sumerian, 513, 536
- Thessalian, 612
- Toltec, 3377
- Trojan, 859, 865-6, 867
 - See also Painted Ware Culture;
- Porcelain
- Poussin, Nicolas, Bacchus and Ariadne, 4037
- Poverty, in Elizabethan Age, 3577
 - in monasticism, 2278
- Power, Electric, in U.S.A., 4736, 4737
- Pozzolana, 2031, 2049
- Praefecti, origin, 1004
- Praeneste, bridge to, 2034
 - brooch from, 1599, 1755
 - plaques and box from, 1718, 1719
 - Rome, treaty with, 1603
 - temple of Fortune, 2032
- Praetor, 1798, 1801
- Praetorians, 1976, 1978
- Pragmatic Sanction, Charles VI and, 3853
- Pragmatism, and Greek philosophy, 1563
- Prague, Catholic League captures, 3639
 - defenestration of, 3596, 3686
 - Königsbrunn besieged, 3655
 - Protestants persecuted, 3627
 - victory of Frederick the Great, 3900
 - Wallenstein captures, 3640
 - Young Czechs take, 4307
- Prague, Peace of (1035), 3507, 3052
 - (1806), 4381
- Praries, and spread of civilization, 340
 - world's areas, map, 333
- Pratinas, of Philus, dramatist, 1354
- Pravda, communist paper, 4005
- Praxiteles, Aphrodite of Chidna, 1303
 - Hermes and Dionysus, 1302
 - nude female form, 1332
- Prayer, of Augustus, to Pates, 1710
 - Babylonian, 585
 - in Brahman thought, 1200
 - in Mahomedanism, 2375
- Preaching, in 18th cent. England, 4212
 - Luther, 3349
- Pre-Oghelcan Period, 147, plate f.p. 220
 - flints, 244
- Preolousus, views, 3991
- Preotom, self-preservation ritual, 350
 - Solutren needles from, 247
- Predynastic: see Egypt, predynastic
- Pre-glacial Period, plate f.p. 220
- Prehistoric: see separate periods as
 - Bronze Age; Iron Age; Neo-lithic Period; Palaeolithic Age, etc.; and Cave Art; Revolution; Primitive Man, etc.
- Pre-Inoa civilizations, 2566, 2591
- Premonstratensians, habits, 2380
- Promeph, Ashanti king, 4629
- Promyslav Dynasty, 3004
- Pro-Raphaelites, in Victorian age, 4549
- Presbyterianism, Calvin and, 3316, 3357
 - and dissentor, 3730
 - intolerance of, 3720
- Prescott, W. H., portrait, 10
- President, of U.S.A., election, 4711
- Press, censorship in France, 4121
 - in Japan, 4424
 - liberty of, in France, 4151
 - under Louis XIV, 3843
 - revolutionary emancipation, 4141
 - Sloves and, 4158
 - in S. Amorion, 4320
- Pressburg, peace of, 4098, 4106, 4101
 - university founded, 3168
- Prester John, empire, 3405
 - origin of belief in, 2702
 - Portuguese mission to, 3536
- Pretoria, British capture, 4671
 - convention (1881), 4620
 - Government building, 1559
- Protorius, M., Boer leader, 4619
- Prism, in Homeric story, 839-41, 850-55, 861, 1339
 - treasure of, 858
- Prine, excavations, 1673
- Priest, Babylonian, beating drum, 585
 - Egyptian, 475, 499 plate f.p. 553
 - king as, 405
 - High, in Judaism, 1954-5
 - little, with gazelles, 735
 - king as, 727
 - in India, 237

Priestess, Babylonian, 580

- coffin, 705
- Egyptian, 371, 678
- Greek, 371
- Hittite, 371
- Minoan, 786
- Pompeian (Eumachia), 371
- Priesthood, Babylonian priest-king, 459, 464
 - Egyptian, 461, 495, 675, 710
 - Akhnaton's conflict with, 742
 - under Middle Kingdom, 540
 - women in, 550
 - and Greek women, 371
 - Hammurabi and, 575
 - in Middle Ages, 3021
 - origin, 221, 644
 - in Rome, 2681
- See also under separate religions
- Priestly, Joseph, attack on Read, 4068
 - isolated oxygen, 3831
- Prieur, F. L., Marie Antoinette, by, 4090
 - mob invading Tuileries, 4086
 - storming of the Bastille, 4081
- Prim, Juan, on horseback, 1381
 - and Mexican question, 4388
 - and Spanish revolution, 4382
- Prima Porta, fresco 1913, 1935
- Primates, 166, 182: see also Anthropoids
- Primeval Era, 41, 93, plate f.p. 96
- Primitive Man, development, life, and community, 187-232
 - in Europe, 148-54, 166-69, 187-190
 - food production and institutions, 232-40, 437-41, 471
 - implements, artistry, hunting and war, 241-300
 - modern type, origin and spread, maps, 196, 210, 230-31
 - the social unit, 389
- See also Cave Man; Hunter Artist; Man, and Prehistoric cultures
- Primo de Rivera, Miguel, 4894
- Primus, Antonius, 1858
- Prinse, Tha, by Machiavelli, 3005
- Prince Edward Island, 4607
- Prince Imperial, 4556
- Princeton College, foundation, 4017
- Pringle, Sir John, and Army medicine, 5047
- Printing, 3181-3200
 - Chinese, 1190, 2556, 2557, 2558, 2560, 3500
 - in Mexico, 4005
 - Phaestus disk, oldest example, 006, 607
 - Ptolemaic block stamps, 36
 - in Russia, 3025
- Prior, position and duties, 2378
- Pripet, river, 2171
- Priscian, medieval schools, 3017
- Priscilla, in early Church, 2178
- Prisous, embassy to Attila, 2476
- Priscus, Helvidius, wife's devotion, 2005
- Priscus, Statius, Roman leader, 1973
- Prism, Newton's, 3828
- Prison, in Bolshevik Russia, 4901
 - Elizabeth Fry and, 4400
 - under Louis XIV, 3858
 - in Middle Ages, 3455
 - strikers in, 4663
 - women at treadmill, 4401
- Prisoners, Assyrian, 833
 - in Egypt, 483, 650, 672
 - Moral treatment of, 3791
- Private Audience, Hall of, Delhi, 3786
- Privileges, abolition in France, 4149
- Probus, emperor, 2121
 - reforms, 2123
 - Rome's walls completed, 2120
- Procles, ruler in Laconia, 983
- Proclus, philosopher, 2689
- Proconsul, in Rome, 1864
- Procopius, historian, on Britain, 2445
 - on great plague, 3103
 - on Justinian, 2305
 - on Slavs, 2476
- Prodrum, the Poor, on Byzantine dwellings 2030
 - on monastic life, 2628
- Protesting, Roman prohibition 2133
- Profit-sharing, inauguration, 4676
- imitations, 5003

Progress, significance, 5085

- Prohibition, in Bolshevik Russia, 4957
 - Mahomet and, 2377
- Projecta, toilet casket of, 2204
- Prokop, Hussite leader, 3137
- Proletariat, in Elizabethan age, 3551
- Prometheus, steals fire, 286
- Prometheus Bound, by Aeschylus, 1349
- Promised Land, richness, 345
- Properius, Latin poet, 1888, 1892
- Property, Egyptian law, 544
 - English and Roman ideas, 2161
- Prophets, Hebrew, 656, 825, 828
- Proplioptheus, ancestor of gibbon, 163, 180, 181
- Prose, Cicero's influence on, 2247
 - Elizabethan, 3560
 - of the Victorian age, 4552
- Prosopis, Persian blockade, 1232
- Prostitute, in Babylonian, 542, 580
- Protection, in Canada, 4005
 - in U.S.A., 4490
- Proterius, patriarch, 2340
- Protestantism, in Bohemia, 3626, 3627
 - Calvin's work, 3302, 3312, 3315
 - Catholics attacked, 3621
 - distribution, 16th cent., 3459
 - economic side of, 390
 - in England, 3499-70, 3499, 3503, 3553
 - in France, 3800, 3560
 - in Germany, 3583
 - in Hungary, 3161
 - Luther's work, 3345
 - in the Netherlands, 3400, 3468
- See also Huguenots; Luther; Reformation
- Protestant League, formation, 3589
- Proton, primitive organism, 88
- Proto-China, art, 2550, 2593, 2598
 - civilization, 2594, 2597, 3282
- Proton, part of atom, 5007
- Proto-Nasea, 2539, 2597
- Prototrogodytes, 174-76, 170-80
- Protozoan, 88, 83
- Proudhon, Pierre, on property, 4983, 4984
- Proust, Marcel, writings, 5020 5022
- Provence, 2820, 2829-36
 - kingdom, 2493
 - origin of name, 1768
- Proverbs, Book of, 1951
 - and Egyptian literature, 500, 708
- Prusias I, at Bithynia, 1666
- Prussia, becomes a kingdom, 3750, 3751, 3877
 - and French Revolution, 4090
 - modera peasantry, 5071
 - and Napoleon, map, 412, 4100
 - political advance, 3980
- See also Germany
- Przemysl, Germans capture, 4758, 4759
 - Russians capture, 4749, 4752
- Przevalsky's Horse, only surviving wild stock, 225
- Psalm, 1952
 - Akbar and, 3700
 - Sumerian hymne resemble, 530
- Psalteries, stringed instruments, 2669
- Psammethobus I, 890, 891, 1015
 - and Greek mercenaries, 1023
 - offering to the gods, 1022, 1023
 - scarab-seal in burial chamber, 1158
- Psammethichus II, 1016
 - pilgrimage to Byblus, 1013
- Psammethichus III, conquest by Cambyses, 1088
- Psamtik: see Psammethichus
- Psaira, bull from, 769
- Pselius, Michael, learning, 2031
- Pseudo-Philippus, Macedonian pretender, 1006
- Pskov, Nicholas II at, 4948
- Psycho, with Ros, 1601
- Psychical Research: see Spiritualism
- Psycho-analysis, and literature, 6020
 - post-war growth, 4870
- Psychology, now science, 4532
 - and physics, 5012
- Psycho, Minoan symbols from cave, 607
- Psiah, Egyptian creator, 644, 645
- Psiah-em-saf, statue, 563
- Psiahofet, instructions of, 500
 - on marriage, 549, 578
- Pterandon, flight capacity, 120
- Pterichthys, armour-plated fish, 113

- Pterodactyl**, early flying reptile, 130
Ptolemaeus, Claudius : see **Ptolemy**, the astronomer
Ptolemaic, architecture and art, 1018, 1020, 1025
Ptolemy, dynasty, 1671, 1685, 2087
 —Greek nationality of, 1414
 —interest in science, 2001
 —patrons of literature, 2166, 2168
Ptolemy I, Soter, Alexandrian library founded, 2062, 2166
 —death, 1410, 1413
 —dynasty founded, 404, 2001
 —kingdom, 1409
Ptolemy II, Philadelphus, 1414, 1587, 2167
 —embassy to Rome, 1573
 —Syrian conquests, 1586
Ptolemy III, Euergetes, 1586, 1587
 —patron of learning, 2072
Ptolemy IV, Philopater, and Rome, 1085
Ptolemy V, Epiphanes, coins, 1687
 —guardianship by Rome, 1685
 —marriage, 1701
 —and Rosetta stone, 1686
Ptolemy VI, Philometor, 1766
Ptolemy VII, Euergetes II, 2168
 —opposition to Ptolemy VI, 1766
Ptolemy XII, Dionysus, defeat by Caesar, 1786
Ptolemy, astronomer, *Almagest*, 2081
 —epicyclic motion theory, 2081-82
 —geographical work, 30, 2075
 —maps, 2076, 2077
 —in medieval school, 3017
 —on optics, 2072
 —theory of the Universe, 48
Ptolemy Ceraunus, 1414, 1583
Public Audience, Hall of, Delhi, 3786
Public Health, 5030-57
 ——medieval, 3112
Public Health Act (1848), 4301
 ——(1876), 5035
Publishing, in Egypt, 2167
 —in Germany, 18th cent., 3940-51
 —in modern England, 4446
Pudrakota, Roman coins found, 1492
Pueblo (village), construction, 2573
Pueblo Indians, buildings of, 2571-73
 ——culture, 2574
 ——pottery, 2573
Pueblo Bonita, village, 2571
Pugilism : see **Boxing**
Pul, king of Babylon, 885
 —Assyrian crown seized, 881, 882
Pulasthi, identified with Philistines, 790
 —typical heads, 797
Pulchra, empress, 2206
Pullars, or Pullari, rice, 2807
Pultava, battle of, 4763
Pumpelly, Raphael, investigations at Anan, 457, 792
Pumping Engine, Watt's, 4352
Punic Wars, First, 1576, 1578
 ——warships in, 1638
 ——changes effected by, 1811
 ——Hannibal in, 1654-66
 ——Second, 1589
Punishment, in Egypt, 712
 —medieval, 3454-56, 3457
 —in pre-Revolution France, 4119
Punjab, Alex. conquers, 1408
 —British annexes, 4100
 —early conquest, 2100
 —Emetius invades, 1490
 —Greeks in, 1492-93, 1502
 —Kadphises I master of, 1981
 —Macedonians expelled, 1414
 —Tamerlane's conquest, 3121
 —Taxila, ruins at, 1446, 1500
Punt, Egyptians originally from, 422
 —Egyptian ships sent to, 353, 420, 501
 —Hathshout's expedition to, 353, 659, 680, 681-2
 —identification, 422, 426, 561, 682
Puritan, origin of name, 3707
 —a Puritan family, 3709
Parianism, 3707-34
 —birth of, 3503
 —campaign against, 3607
 —conceptions and ideals, 3503-04
 —effects, 3999
 —in 18th century Germany, 3947
 —Jansenism similar to, 3867
 —sable on court, 3503
Purple, Born in the, 2293
Purple of Cassius, 975
Purusha, world spirit, 2394
Purvey, John, trans. of Bible, 3075
Pushkin, Alex., 4312, 4313
Puteoli, amphitheatre, 2057
Puy, Raymond de, organization of Hospitaliers, 2977
Puy de Dôme, mt., sanctuary on, 1522
Puy d'Issolu, 1730
Pu Yi, last Manchur emperor, 1661
Pydna, battle of, 1681, 1694
Pygmies, characteristics and distrib., 197-8, 226, 232, 336
 —dwarf flakes used by, 247
 —survivors of early type, 197
Pylos, Athenian fortifications, 1212
 —probably Kakovatos, 745
Pym, John, parliamentary leader, 3671
Pyson, Richard, printer, 3192
 —device, 3193
Pyramids, 424, 503-9
 —Maya, 2577, 2581, 2583
 —at Merot, Nubia, 1009
 —Mexican (Teotoc), 2589, 2594-95
 —Napoleon on, 4181
 —tyranny of building, 500
Pyramids, Battle of the, 4094
Pyramus, river valley, 715
Pyrenees, broad-heads in, 228
 —upheaval, 110
Pyrenees, Peace of the (1659), 3739, 3500
Pyrites, used in fire-making, 216, 286
Pyrrhic, or military dance, 1919
Pyrrhic War, 1572, 1607
Pyrrho of Elis, first sceptic, 1160
Pyrrhonism, 1446
Pyrrhus, king of Epirus, 1413, 1583
 —Carthaginian wars, 1807-08
 —Roman campaigns, 1571, 1407-08
Pythagoras, philosopher, 1472-73, 2094
 —conceptions of the soul, 1453, 1905
 —mathematical achievements, 1185, 1473
 —position in medieval school, 3017
Pythagoras, officer of Ptolemy, geo-graphical treatise, 2169
Pytheas, Greek adventurer, 1630
Pythian Games, 1314, 1314
Pythian Maidens, in cult of Apollo, 1308
Pythios, Greek architect, 1180
Pyxides, Greek jewel boxes, 1283
- Q**
- Qau**, ceilings of temple, 33
 —rock tomb, 32
Q Ship, H.M.S. Gunner (Q 31), 4855
Quadi, German tribe, 1973
Quadruped, first appearance, 104
Quadruple Alliance (1717), 3381
Quadruple Alliance, France admitted to (1818), 4260
Quaestor, in Rome, 1799, 1800
Quakers, meeting house, Jordans, 4007
 —Pennsylvania founded for, 4007
 —punishment of James Naffor, 3739
Quantum Theory, 5010
 —Planck and, 5004
Quarantine, medieval, 3113, 3118
Quaternary Period : see **Pleistocene**
Quatre Bras, Ney at, 4108
Quintemayne, T., brass of, 2933, 2934
Quebec, capture by Wolfe, 3901
 —French colony, 411
 —Phipps' attack on, 4024
 —in 1760, 4596
Quebec Act (1774), 4596
Queen Anne's Gate, London, 4239
Queen Mary, H.M.S., at Jutland, 4348, 4849
Queen's College, London, opening, 4408
Queensland, foundation, 4609
 —primitive weapons from, 271, 270
 —socialism in, 4993
Quéroneille, Louise de, plate f.p. 3953, 4002
Quesnay, F., theories, 4127
Quetzalcoatl, Mexican god, 2589, 2594, 3370
 —See also **Kukulcan**
Quiberon Bay, British victory, 3901
Quichua, language, 324
Quietism, 3868
 —crushed by Jesuits, 3866
- Quilon**, bishopric, 2914
Quinoa, early cultivation, 2592
Quinqueme, 1638-39
Quinblan, 1882
 —out deformed slaves, 2004
 —influence on education, 1896
Quintus, tribune, law, 1053
Quippu, Peruvian mnemonic, 297, 1063, 3378
Quirigua, Maya stelae, 2574, 2575
Quirinus, god, Roman worship, 1746
Quito, capital of Ecuador, 4333
- R**
- Ra**, sun god of Egyptians, 358, 426, 544-45, 638
 —shepherd of all men, 654
 —soul's journey on boat, 649
 —his supreme god, 739
Ramesses, Israelites helped to build, 815
Rabat, Tower of Hasan, 3270, 3272
Rabelais, François, 3334, 3338
 —publication of *Gargantua*, 3681
 —use of vernacular, 3223
Rabianu, Babylonian mayor, 676
Rabirius, Cicero defends, 1800
Rabshakeh, sent from Lachish, 531
Raby, highwayman, 4213
Races, British Isles, map, 302
 —cultural distinctions, 31-40
 —early home zones, map, 330
 —Late Stone Age, chart, 222
 —modern distribution, map, 231
 —origins of, 187-240
 —seven predominant, 232
Race Movements, the New Peoples, 791-808
 —into Palestine, 832
Racial Spirit, 303-20
 —among Aryan peoples, 419
Rachal, group of Jewish tribes, map, 813
Rachel, v. of Jacob, 540
Racine, Jean, 3860, 3861
 —technique, 4043
 —and the unities, 4030
Radagaisus, barbarian, Italian invasion, 2201
Radezky, Josef, Austrian general, 4267
Radicalism, English, founders, 4282
Radium, for cancer, 5938
Raeburn, Sir Henry, Joseph Black, 3537
 ——Innanah More, 1216
Raetia, Ruglans in, 2255
Raffles, Sir Stamford, 4600, 4626, 4627
Raglan, Lord, 4373
Ragnar Loðbrok, Viking, 2521-22
Ragusa, Republic of, medieval quantum-the regulations, 3112
Ra-hotep, statue of, 477, 502
Ralkas, Robert, 4403
Railwaymen, National Union of, 4681
Railways, in Australia, 4612
 —in Canada, 4607
 —in Chile, 4327
 —in East Africa, 4635
 —in England, 4355-57
 —Liverpool and Manchester, 1337, plate f.p. 4339
 —in India, 4462
 —in Japan, 4417
 —in Peru, 4334
 —in U.S.A., 4357, 4487, 4781
 —in battle of Bull Run, 4391
 —corruption, 4502
 —elevated, New York, 4603
 —rates, 4513
 —trans-continental, 4592
 —the Trans-Siberian, 4911
Railway Servants, Amal. Soc., Osborne and Taff Vale decisions, 4680
Rainfall, in equatorial belt, 335-37
 —world distribution, maps, 332, 338
Rain god, Maya, 2580, 2590
 —Roman, 1931
Rainulf, Count, Norman settlement in Italy, 2615
Rajputs, 3168
 —Akbar and, 3793
 —Anrangzib and, 3778, 3793
 —in Hindu law, 2274
 —Hua origin theory, 2360
 —tower of victory at Chitor, 3717
 —tributaries of Hindua, 3797

- Rakoczy, Fraoicis, Hungarian patriot, 3162
- Raleigh, Sir Walter, 3574-75, 3576, 3719
— map of El Dorado, 3576
— tobacco popularised by, 3447
- Ramadan, Fast of, Muhomedan, 2375
- Ramayana, Indian Aryan epic 2400
- Rambouillet, Marquise de, salon, 3901
- Ram Das, Mogul painting by, 3783
- Rameses I, succeeded Horneheb 663
- Rameses II, 663, 670, 671
— Abu Simbel temples, 670, 689, 690
— alliance with Hittites, 681
— Amorite prisoners of, 797
— at battle of Kadesh, 671, 673
— builder of temples, 705
— incidents in campaigns, 672
— lord of food, 647
— obelisk reinscribed, 702
— Pharaoh of Exodus, 815
— poem on, 708
— Shirdian as mercenaries, 793
— as son of Ita, 646
— statue of vizier, 678
— treaty with the Kheta, 592, 639
- Rameses III, 671
— in abundant Nile, 647
— and 'disturbance of the isles,' 799
— Minoan vessels in tomb, 758
— naval battle, 671, 675, 682
— Philistines defeated, 796
- Ramesseum, 690
- Ramillies, battle of, 3759
- Ramin, General, with Frederlek II, 3981
- Rammes, Roman tribe, 1705
- Ramolino, Letizia, mother of Napoleon I, 4170, 4180
- Ra-nefer, statue, plate, 475, 502
- Ranelagh, the Rotunda, 4243
- Ranger, Roberts' plato ship, 3300
- Ranjit Singh, 4448, 4457-58
— owned Koh-i-Noor, 3706, 3775
- Rankine, Prof. A. O., on acoustics, 4790
- Rapallo, Treaty of (1020), 4883
- Rapo of the Loek, The, title page, 4045
- Raphael, 3221, 3226-27, 3238, 3230
— Castiglione's portrait, 3214
— Disputa, Vatican fresco, 3227
— Julius II, 3228
— Leo X with cardinals, 3245
— Mediterranean type, 323
— pagan themes, 3241
- Raphin, Assyrian victory nt, 880
— defeat of Antiochus, 1580
- Rapier, Mycenae, 788
- Rashid ad-Din, History of the Mongols, 2848, 2849
- Rashtrakutas, rule in India, 2306
- Rasputin, Grigory, 4944, 4940
- Rastadt, conference at, 1694
- Rastislav, of Moravia, conversion of
Slavs under, 2472
- Ratchle, Lombard king, 2416
- Ratdolt, Erhard, Venetian printer, 3190
- Ratzer, abbot of Fulda, church building
by, 2441
- Rationalism, ancient and modern, 1452
— at Italic, 3947
— in pre-Reformation Europe, 3451
— in pre-Revolution France, 4124
— in Revolutionary Russia, 4957
— in Revolutionary France, 4139
- Ratishon, Diet of, and balance of power,
3045
- Rattle, use in Abyssinian church, 1011
— (sistrum), in Egyptian worship, 693
- Ravallin, Francois, assassination of
Henri IV, 3584
- Ravenna, capital of Western Empire
2202, 2231
— mausoleum of Placidia, 2203
— Theodoric, 2259
— Maximian's throne at, 1933
— medieval rulers, 2758
— S. Apollinare in Classe, ciborium, 33
— S. Apollinare Nuovo, 2155, 2261
— — mosaic, 2303
— S. Maria in Cosmedin, mosaics, 2332
— S. Vitale, 2439-40
— — mosaic, 2261, plates f. pp. 2302-03
— siege by Belisarius, 2266
— — Theodoric, 2258
— Theodoric's palace, 2231, 2259
- Ravenn, Exarchate of, 2486
— conquest by Luitprand, 2359
- Rawalpindi, ruins of Taxila, 1500
- Raymond, of Toulouse, 2652, 2654
- Raymond, of Tripoli, regent for
Baldwin IV, 2742
- Raymond Berengar, of Barcelona, 2660
- Rayy, Seljuk capital of Persia, 2782
- Razors, Phoenician bronze, 1629
- Reade, Charles, on medieval life, 3440
— and social reform, 4405
- Reading, monastic lords of, 2725
- Reaping: see Harvesting
- Reason, age of, revolt against, 4298
— French cult of, 4131, 4135
- Rebekah, typical of tribal spirit, 223
- Rebellion Losses Bill, Canada, 4604
- Rebirth: see Buddhism: Hinduism
- Rebos, in Central American script, 1064
- Reccared, Visigothic king, 2203
- Rechinbites, reformers, 823
- Reconstruction of French devastated
areas, 1905, 4906, 4916
— in U.S.A. after Civil War, 4489, 4491
— in Prussia, 18th century, 3623
- Red Commissars, in Russian army, 4954
- Red Cross Society, origin, 4375
- Redemption, religious idea, 2081
- Redi, Francesco, zoological work, 3836
- Red Indians: see American Indians
- Red Sea, curia from, 458
- Egyptian ports on, 462, 679
— — seafaring on, 561
— — trading settlements on, 1542
- Red Sunday (1905) in Russia, 4442
- Red Terror (1918), in Russia, 4950
- Red Ware, in Near East culture abt.
6000 B.C., 501
- Reed, Sumerian writing, 1068
- Rees, Morgan, on monopolies, 4990
- Reeve, medieval duties, 2726
- Reform Act (1832), 4269, 4434
— — economic results, 392
— — first Parliament after, 4432
- Reform Act (1867), 4677
— — Punch cartoon, 4136
- Reform Act (1918), 5082
- Reform Act (1928), 5082
- Reformation, The, 3295-3317, 3355
— administration of Holy Com-
munion, 3348
— — beginnings, 13, 3064
— — and Council of Constance, 3341
— — economic compromise, 390-1
— — in England, 3357-59, 3497
— — imperial title and, 398
— — in Italy, 3248
— — law influenced by, 2159
— — Luther's teaching, 3345-3350
— — Nationalism and, 3606
— — political thought and, 3690
— — printing and, 2560
— — progress, 3161
— — and Renaissance, 3222, 3247
— — Viking influence on, 2528
— — Wyellife and, 3074
- Refraction of Light, Greek study, 2071
- Refrigerator car, first use, 4504
- Regal, musical instrument, 2964
- Regensburg, conference at, 4097
— retaken by von Gallas, 3652
- Regillus, Lake, battle of, 1751, 1754
- Regiment, church regulation of Peter
the Great, 3934
- Regnault, A. G. H., General Prim, 4331
- Regulating Acts (1773), India, 3905
- Regulus, Roman commander, 1576
- Rehoboam, king of Judah, 810
— defeated by Shishak, 830
— division of kingdom, 677
- Reichenbach, Treaty of, 4685
- Reichskammergericht, function, 3678
- Reichstag, socialists in, 4986
- Reid, Thomas, philosophy, 4668
- Reign of Terror, duration, 4091
— — prison massacres, 4172
— — Robespierre and, 4176
- Reims Cathedral, 2861-63, 3873
— buttress piers and pinnacles, 2881
— — crowning of French king, 2880
— — sculptures on 2881, 2864, 2885-87,
2892
— — tombstones of master mason, 2884,
2885
- Reincarnation, in Buddhism, 1210
— in Hinduism, 2395
- Reindeer, domestication, 285, 291, 335
— in Great Britain, 110, 136
— horn implement, Magdalenian, 248
— on Magdalenian pendant, 290
— needles, etc., of horn, 247
— ptg., Pont de Gaume, 259, plate, 264
— in the Arctic, 335
— Vikings hunt, 136
- Reishmara, painting from tomb, 700
- Relativity, 4701, 5908
— and energy radiation, 61, 5010
- Relics, adoration, 1506, 2480
— reception of a saint's, 2480
- Relief, in sculpture, Greek, 1335
— Roman, 2238, 2240, 2241
- Religion, beginnings of, 16, 216, 299-
300, 637-56
— Bolshevik war on, 4971
— colonisation influenced, 3549
— Crete early, 600
— after the Great War, 4861-71
— humanism and, 3923
— of hunter artists, 216, 299-300
— Kant and, 4072
— medieval art derived from, 3325
— Moustarian, 189, 192
— mystery, 2084
— mythology and ritual in, 2374
— nationalisation of, 4862
— origin of word, 1780
— and philosophy, 1903, 4125, 4522
— primitive, symbolism, 299-300
— supernatural beliefs, 349-64
— in Victorian literature, 4550
- See also specific religions and
general headings as Burial
Customs; Deification; Nature
Worship; Paganism; Ritual;
Reformation, etc.
- Religion, Wars of, in France, 3698
- Religious Belief, questionnaire on, 4805
- Religious Orders, decay, 3004
— — during Great Schism, 3070
— — foundation, 2550, 3418
- See also Knights Hospitallers;
Knights Templars, etc.
- Remus, 1594-95, 1012
- Renaissance, 3138-46, 3201-52, 3318-
44
— birth, 3121-45
— characteristics, 3079, 3251
— crusades and, 2815
— debt to Rome, 2235-36
— education value, 3219-20
— in England, 3238, 3332, 3336
See also Tudor Period
— and English language, 1883, 2243
— evolution, 2989
— forerunners of, 3216
— in France, 3237, 3334
— historical study and, 13
— in Hungary, 3159
— in Italian cities, 3210-20
— literature, 3219, 3223
— in London, 3562
— patrons, 3218, 3433
— political effect, 3694
— and Reformation, 3247, 3332, 3345
— Roman law and, 2159
— and women, 3089
- Renaissance Architecture, 3223, 3236,
3241, 3250, 3251
— — foreshadowed in Gothic, 2880
- Renaissance Art, 3321-52, 3328-44
— — Greek influence, 1559, 1561
— — Roman influence, 2237-40
- See also under names of artists,
e.g. Giotto; Michelangelo, etc.
- Renan, Ernest, on Marcus Aurelius, 1908
- Rennenkampf, General, in Great War,
4793
- Rent, paid in kind, Ur, 530
— tenant paying, Tudor Period, 3457
- Reparations, and German coal, 4913
— Germany and, 4590, 4911, 4913
— post-war problem, 4378
- Repentance, Christian doctrine, 4871
- Representative, of French people, 4166
- Reptiles, evolution, 107, 116, 117
— lying, 130-31
— prehistoric, reconstructions, 117-19,
121-27, 730
— traces in humans, 183
- Republic, Greek influence, 1568
See also under France; Rome

Rapnblennem, and the Catholic Church, 4135
Republican Party, in American politics, 4507, 4611
Regnesene, Lina, governor of Netherlands, 3471, 3472
Resesby, Sir J., description of Lady Castlemaine, 4000
 — — — Catherine of Braganza, 3009
Respirator, gas, 4792, 4795
Restitution, Edict of, 3593
Restoration, of Charles II, 3581, 3600
 — of French Bourbons, 4280
Retzvian, Russian battleship, 4663
Reuchlin, Johann, 3334
Reunion, British capture, 4000
Reunion, Chambers of, 3743
Revelation, Book of, number of the best, 1472
Revere, Paul, his home, Boston, 4023
Revolution, English (1688), Macaulay's account, 9, 3745-48
 — European (1848), 4369-72
 — French: see French Revolution
 — German (1920), 4910
 — Industrial, effect on labour, 4007
 — Russian, 4030, 4046
 — S. American, 4332
 — World, Communism and, 4977-94
Revolver, early specimens, 2954
Rex, title, 1590, 1598
Reyan, colleague of Mirbeau, 4165
Reye, President, of Colombia, 4335
Reynolds, Sir J., Edmund Burke, 3907
 — — — John Hunter, 3048
 — — — Samuel Johnson, 4039
 — — — literary party, 4210
 — — — Elizabeth Montagu, 4210
 — — — Sir J. Pringle, 5017
 — — — Rodney, 3909
Rezondo, P. B. de, map of Portuguese E. Africa, 3396
Rhaetio Inscriptions, 1155
Rhasis, Arabian doctor, 1506
Rhea, goddess, frieze at Perseum, 7691
Rhegium, capture by Dionysius, 1250
 — — — revolt against Rome, 1675
Rhetoricus Georgius, 3340
Rheumatism, Maygarth's study, 5045
Rhine, Roman bridge, 2039
Rhine, Confederation of the, 4101, 4101
Rhine-Danube, Roman frontier line, 1872, 1884
Rhine Provinces, post-war: see Germany, Occupation
Rhinoceros, prehistoric types, 134, 190
 — woolly, in England, 110, 136
 — — — prehistoric painting, 259
Rhodes, Egyptus work found at, 758
 — Knights Hospitallers in, 2814, 2828
 — Lindus, port of, 1678
 — Almon settlement, 785
 — Mycenae and, 809
 — pirates and, 1648
 — in Roman times, 1808
 — siege of, 304 n.o., 1410
 — 10th cent., 3314
 — stirrup vase from, 789
 — Street of the Knights, 2828
 — Third Macedonian war, 1681-82
 — Turkey attack, 3313-14
Rhodes, Geol. J., and the Cape to Cairo Railway, 4632
 — — — and Jameson raid, 4021, 4022
 — — — on native inferiority, 5082
Rhode Island, Bishop Berkeley at, 4018
 — — — settlement, 4007-08
Rhodesia, British occupation, 4033
 — — — and Monomotapa, 3390
 — — — Zimbabwe ruins, 3399, 3400-01
Rhodesian Mm, 100, 169, 185
Rhona, Roman earthworks, 1729
Rhozdestvenski, General, 4568
Rhyntia, fossil gnase, 101
Rialto, former name of Venice, 3029-30
Ricardo, D., theories of, 4533, 4982
Ricasoli, Lisa, wedding chest, plate J.P. 3206
Rice, or Rixi, Matteo, in China, 3525, 4052
Rice, China, first rec., 445
 — — — blinding out, 233
 — — — civilization of growers, 341, 437
 — in monsoon lands, 330
 — ploughing field, Java, 341

Rich, Barnaby, on Puritans, 3708
Richard I, of England, 2743, 2745
 — — — Crusading campaign, 2742, 2800
 — in Cyprus, 2743, 2814
 — — — England under, 2748
 — — — and fall of Acre, 2744
 — — — treaty of Falaise abrogated, 2740
 — — — with Saladin, 2744
 — — — as troubadour, 2994
Richard II, of England, 3126, 3428
 — — — degeneracy, 3431
 — — — as "Emperor," 308
 — — — freedom of debate under, 3071
 — — — and patron saint, 3094
 — — — Peasants' Revolt, 3100-02
 — — — reactionary legislation, 3102
 — — — surrender to Henry IV, 3126
 — — — and Wat Tyler, 3101, 3102
Richard III, of England, 3142
Richard, of Cornwall, Sicilian crown offered to, 2825
Richard, the Fearless, of Normandy, vassalage to the French, 2906
Richard, the Good, of Normandy, Clunian reformation, 2611
Richard's Castle, Norman, pre-Conquest, 2710
Richardson, Samuel, reading Sir Charles Grandison, 4302
 — — — *Voguo of Clarissa*, 3950, 4303
Riechtborch, Roman fort, 2155
Richelieu, Cardinal, 3387, 3597, 3612
 — — — as director of strategy, 3652
 — — — *Journal Académie française*, 3862
 — — — and Gaston, Adolphus, 3591
 — — — 3631, 3615, 3610
 — — — and the Huguenots, 3611
 — — — on his own policy, 3833
 — — — and Louis XIII, 3585
Richelieu, Duc de, minister of Louis XIV, 4207
Richmond, Yorks, castle, 3712, 3715
Richmond and Lennox, Duke of, son of Charles II, 4003
Riekets, in post-war Austria, 4907
Riekets, Charles, printing, 3190
Riding, origin of practice, 285
Ridley, Nicholas, martyrdom, 3498
Riobock, Commander van, at Table Bay, 3403
Rievaulx Abbey, 3358
Rifle, arquebus predecessor, 2944
 — — — German, against tanks, 4820
Rifeman, American colonial, 4030
Riga, Treaty of (1021), 4882
Rights of Man, Declaration of, 4132
Rig-Veda, and Aryan territories, 452
 — — — classification of mankind, 2304
 — — — hymn from, 655
 — — — and Indian religion, 638
 — — — on ruler's domestic priest, 648
 — — — secret for govt proved by, 357
 — — — women in legends of Manu, 378
Rim-Sin, king of Elam, 432
Rimini, bridge of Augustus, 2037, 2038
Rimsh, son of Sargon, 431
Rinckart, Martin, religious lyrics, 3945
Rio Grande, secessionist rebellion, 4331
Rio de Janeiro, Brazilian court at, 4322
Rio Tinto, mines of, 1905
Ripon, Lord, viceroy of India, 4473
Rising, manor, granted to Wm. de Albini, 2709
Rita, natural order, in Oriental religion, 655
Ritual, Christian and Buddhist compared, 1500
 — — — Dalmacy, 236
 — — — dancing at funeral, 557
 — — — as element in religion, 2374-5
 — — — Eskimos' duck dance, 213
 — — — Magdalenian, with bear model, 251
 — — — Minnow, 607, 608
 — — — models of Egyptian servants for, 549
 — — — origin of games 353-1
River Curators, 105, 476-2
River Drift Period, 27
Rivers, in Devonian Period, 100
 — — — as preservers of history, 145
 — — — Roman canalization, 2052
 — — — reclamation, 2049
 — — — terraces, culture records, 145, 147
 — — — worship by Greeks, 1307
River Transport, Roman, 2132, 2133
Rivoli, battle of, 4003, 4182

Riza Khan, slush of Persia, 4898
 — — — crowned Pahlavi, 2318
Riza-i-Abbasi, Persian painter, 3771
Roads, concrete, in Venezuela, 4331
 — in 18th cent. England 4251, 4341, 4344, 4346
 — — — English medieval, 3452
 — — — Greek plan of, 2033
 — — — Lucas, 3385
 — — — Roman: see Roman Roads
 — — — system in Empire of Darins, 401
Robbers, The, title page, 3961
Robbery, Anglo-Saxon laws, 2402-3
 — in 15th century England, 4314
Robenhausian Culture, 267, 368
Robert, emp. at Constantinople, 282-3
Robert, of Anjou, king of Naples, 3001, 3006
Robert, of Artois, death, 3081
Robert, the Englishman, first translator of Koran, 3291
Robert, of Geneva: see Clement VII antipope
Robert, of Normandy, I. of the Conqueror, 2602
Robert, of Normandy, a.o. the Conqueror, Crusader, 2652
 — — — fortress at Newcastle, 2716
Robert, the Strong, founder of Capetian House, 2006
Robert, Bartholomew, pirate, 3800, 3817
Roberts, Richard, plowing and punching machines, 4358
Robertson, T. W., dramatist, 4552
Robeson, Paul, Epstein's bust, 5036
Robespierre, M. M. L., 4176, 4177, 1091
 — — — arrest, photo f., 4090
 — — — Danton's opposition, 4175
 — — — denunciation of Girondins, 4172
 — — — Jacobin leader, 4088
 — — — and prison massacres, 4172
 — — — and the Supreme Being, 4131
Robins, J. B., On Nature, 4407
Robust, Jacopo: see Tintoretto
Rocca I, Sinchi, Inca chief, 3370
Rocca II, Inca ruler, 3380
Rooh, S., and plague victims, 310
Rocheffoucauld, F. de la, 4042
 — — — maxims, 3801, 4042
Rocheila, La, captain (1631), 361, 361
 — — — Huguenot stronghold, 3465
 — — — siege of 1628, 3593, 3591
Rochester, castle keep, 2609
Rock-drawing, sacred, of Australian aborigines, 210
 — — — See also Bushmen; Cave Art
Rocket, Stephenson's engine, 4356, 3357
Rocks, age sequence, England, 90
 — — — formation, 85-6
 — — — of Pampalaezole Era, 81, 90
 — — — primeval, forming highlands, 84, 84
 — — — secondary, Man and 86
Roerol, Condé's victory at, 3597, 3654
Roderic, Visigothic king, 2355
 — — — defeat by Moors, 2350, 3268
Rodney, Sir George, 3969
Rodzanko, president of duma, 1914
Roe, Sir T., ambassador to India, 3772
Roehuck, Dr., and Watt's inventions, 4352
Reekilde, Treaty of, 3802
Roger I, Guiscard, of Sicily, 2616, 2601
Roger II, of Sicily, 2650, 2601, 2696
 — — — Cefalù founded, 2703
 — — — Italian agrig colonies, 2703
 — — — passion for geography, 2703
 — — — and Philip the French, 2693
Roger, of Apulia, death, 2650
 — — — support of Urban II, 2650
Rogers, Samuel, apparant classification, 4310
Rohan, Breton family, malice, 2081
Rohan, Henri de, French general, 3653
Rehilla War, 4445
Rois fainéants, Frankish kings, 2354
Rokytne, swamps, Neurol tribe in, 2171
Roland, knight, 2975
Reland de la Pintière, Jean M., 4171
 — — — and prison massacres, 4172
Relani, Mme, 4171
Rollo, or Rolf, Viking, 2406
Roma, personified on coins, 1612
Romagna, medieval history, 2754-5

Roman Architecture, 1914-18, 1957, 2016-2021, plate f.p. 2020, 2027, 2029-60

- Africa, 1982, 1990-91
- amphitheatres, 1814, 2031, 2045, 2047-50, 2143
- aqueducts, 2042-43, 2016-47
- arch in, 1914, 2032, 2035
- baths, 1815, 1915, 2020-21, plate f.p. 2021, 2151
- bridges, 2040-41, 2018, 2237
- building methods, 2029-31, 2245
- buttresses, 2033
- decay in 9th and 10th cent., 2770
- drainage, 2020, 2044, 2052-63
- engineering triumphs, 2029-60
- Etruscan influence, 1912, 1914
- Greek influence, 2031-32
- house, 1730, 1817, 1819, 2007-11
- British, 2152-53, plate f.p. 2152
- Ostia, 2010, 2019, 2239
- Pompeii, 1817-18, 2008
- orders and styles, 1915
- Ostia, 1874, 2010, 2019, 2026, 2239
- harbour works, 2050
- Pompeii, 1811-15, 1817, 1858, 2008
- Republican, 1746, 1815, 1817-19, 1858
- Roman principate, 1918
- Syria, 1957, 2050-57, 2121
- temples, 1734, 1736, 1754, 1014, 1917, 2016-18, 2060
- theatres, 1887, 2026-27, 2053
- town planning, 2050-59
- vaulting methods, 2022-31, 2237, 2238, 2860

Roman Army (and Military System), 1717-33

- deterioration, 2nd cent., 1713
- election of emperors, 1076-77
- field dressing-station, 2210, 2244
- helmets found in Britain, 2141
- medical staff, 1733, 2240, 2241
- military hospital, plan, 2211
- organization, 1717, 2250
- powers and influence, 1805
- Praetorian Guards, 1865
- in the provinces, 1971
- reforms of Augustus, 1860
- by Marius, 1718, 1770, 1833
- 'sacramentum,' oath to Emperor, 1807
- Sarmatian influence on, 2310

Roman Art, 1911-41

- Aldobrandini Marriage, 1935, 1936
- Ara Pacis, 1862, 1869, 1900, 1919, 1920, 2211
- cameos, 1818, 1850, 1910
- Emile, 1727, 1742, 1845-50, 1862, 1965-67, 1975-79
- engraved gems, 1913
- Ficoroni cista, engraving on, 1545, 1913, 1914
- intaglio impressions, 1913
- knights, processional sculpture, 192
- metal work, 1921, 1941
- mosaics, 1826, 1844, 1891, 1937, 1940, 1905, plate f.p. 2021, 2060
- New Attic style, 1919, 2090
- painting, 1894, 1933, 1934-39, 2014
- portraiture, 1709, 1820, 1920, 1923, 1925, 1933-34
- pre-Republican (Arringatore), 1920, 1921
- Republican, 1709, 1716, 1719, 1820-21, 1821, 1922-23
- sculpture, 1709, 1710, 1780, 1820-21, 1821, 1845-50, 1855, 57, 1919-33, 1974-79
- contrasted with Greek, 1918
- equestrian statues, 2239
- Etruscan influence, 1911
- the portrait, 2239
- relief, 1965-67, 1970, 1976-7, 2238, 2240, 2241
- Renaissance debt, 2243

Roman Britain : see Britain

Roman Catholic Church, emergence o

- establishment of temporal and spiritual power, 2324-25

Roman Catholic Church—cont.

- influence of Latin religion on, 1753
- medieval reform struggle, 2056
- partition from Eastern, 2225
- Roman imperial idea in, 408, 2251

See also Papacy

Roman Catholicism, distribution 16th cent., 3459

- under early Stuarts, 3662
- emergence at Reformation, 3302
- and Huguenots, 3461, 3463-65
- post-war spread, 4867
- in Tudor England, 3499, 3503

Romance Languages, 1870, 1882-83

- Latin derivation, 326, 2241-42

Roman Colonies, 1002-04

- government, 1806
- importance, 1809

See also Roman Provinces

Roman Constitution : see Roman Law

Roman Drama, 1830, 1885, 2025

- actors, mosaic, plate f.p. 2021
- comedy, Greek influence, 1759
- scene from, 1887
- stock characters, 1359
- Greek source, 1755

Roman Emperors, election by army, 1978

- by Senate, 1980
- personal sovereignty, 1980
- position of, 1843, 1803-04
- powers and duties, 1867-68
- worship, 1376, 1877, 1902, 2131, 2182
- influence on art, 1919

Romanesque Architecture, 1410-43

- arch, 2863
- balcony, 2881
- comparison with Gothic, 2886
- development, 2443, 2861
- in England, 2889
- Gothic developed from, 2881
- revival under Charlemagne, 2442
- ribs and pointed arch, 2869

Roman Language and Literature : see Latin Language; Latin Literature

Roman Law, constitutional, 1647-62, 1795-1808

- Christianity's connexion, 2160
- early criminal jurisdiction, 1800
- effect of fall of the Empire, 2157
- in France, 3009
- influence on modern, 2250
- magistrates, 1798
- medieval, 2159-60
- native laws combined with, 1909
- natural law and, 2160
- private, history and development 2157-61
- Renaissance appreciation, 3342
- treason prosecutions under, 1850, 1873
- Twelve Tables, 1757
- world's debt to, 2157-2164

Roman Legions : see Roman Army

Roman Literature : see Latin Literature

Roman Matron, the ideal, 376, 1827

- portraits, 2248

Roman Navy, 1717, 1719, 1721, 1733

- fleet organized, 1870, 1577
- sea power beginnings, 1540
- suppression of pirates, 1776
- tactics and devices, 1038, 1733

Romano, Ezzellino (Beccoli) de, 2705

Romano, Giallo, illustrations to Arcim

- relief, Francesco Siorza, 3138

Romanovs, Russia under the, 3917-42

Roman Provinces, 1707, 1803, 1993

- defence, 2139, 2227-28
- under Empire, 1992, 1995-98, 2131, 2227
- life in, 2226
- organization, 1705
- under Republic, 1707-08
- symbolic figures, 1992
- taxation, and its evils, 2229
- under Trajan, map, f.p. 1962

Roman Religion, 1734-754, 1809-100

- Arval Brethren, college, 1900
- Augustus as head of, 1804, 1865
- emperor worship, 1002 : see Roman Emperors

Roman Religion—cont.

- Etruscan influence, 1600
- fire sanctity, 1128
- Greek influence on, 1746, 1751-52, 1758, 1902
- Illite god, adoption, 738
- household gods (Lares), 1737, 1877
- nature worship in, 1128, 1783-45
- oriental cults, 2083-97
- Pontifices, College of, 1594
- state, 1745, 1890, 1900
- withdrawal of privileges, 2197
- worship of the dead, 1740, 1876

Roman Roads, 2033-34, 2025-36, 2060

- modern use, 2235, 2236
- Peutinger Table itinerary, 2246

Romans, character, 1705

- affected by slave population, 1714, 1902
- cruel streak in, 2634
- degrading influence of amphitheatre, 2025
- republican deterioration, 1713-15
- citizenship, 1719
- conjugal happiness among, 1825
- Etruscan influence on, 1167
- family religion, 1736, 1738
- farming, 2029
- funeral of wealthy, 1741
- geographical knowledge, 1987
- Greek culture, influence of, 1755, 1761
- kitchen utensils, 2009
- life under Empire, 2001-2028
- under Republic, 1736-38
- marriage customs, 1740
- middle-class families, 1716
- morals, republican decay, 1715
- race degeneration, 2232
- religion, attitude to, 1705
- Republic, men and women of, 1709
- settlement at Troy, 355

Roman Senate, 1707-1808

- deterioration, republican, 1714
- diminishing powers, 1868
- election of emperors, 1861, 1980
- encroachment by Claudius, 1875
- foreign policy, 1707, 1801-05
- plebeians in, 1033
- powers, 1801-05, 1811, 1841, 1868
- privileges of, 1831
- reconstituted 1143 A.D., 2774
- reform under Vespasian, 1876
- seators' position, 1810, 2001
- wane of authority, 1708

Romans, Epistle to, 2232

Romantic, derivation of word, 4298

Romanticism, 4296-4137

- London the herald, 3864
- and the Victorians, 4338

Romantic Movement, The, 4297

Romantsch, 2472

Roman Triumph, Gaulish prisoners for, 1870

Romanus I, emperor, reign, 2511

Romanus II, emperor, 2511, 2618

- hoar hunts, 2623, 2624
- daughter married to Otto II, 2501

Romanus IV, Diogenes, emperor, con

- quest by Seljuk Turks, 2514
- crowning with wife, 2618

Romanus, Argyrus, emperor, 2514

Roman Walls, construction, 2036

- in Britain, 2021, 2138, 2144, 2150, 2156

Rome (the ancient State), Assembly, forms of, 1795

- Christianity in : see Christianity; Christians, Early
- colonial system : see Roman Colonies
- commerce and trade, 2129-36
- constitution of State, 1593 : see also Roman Law
- culture, rural background, 2020
- decay in 9th-10th cents., 2770
- dictatorship, 1799
- Julius Caesar, 1755, 1787-88
- The Empire, Africa a granary, 467
- army, 1887
- Augustus builds up, 1983
- under Aurelian, 2120
- barbarian invasions, 2200-08, 2210-22, 2232
- barbarians' absorption in, 2225
- influence on decline, 2232, 2284
- beginnings of, 1863

Rome (the ancient State)—*cont.*

- The Empire—cont.*
- boundaries, 1987, 2130
- maps 406, plate *f.p.* 1963
- under Theodoros and Justinian, map, 2256
- capital moved to Byzantium, 2127–28, 2211
- character and organization, 2137
- China compared with, 2101
- Chinese intercourse with, 2107, 2136
- Christianity in, 2176
- and paganism in, 2224
- as state religion, 2224
- See further under Christianity and Christians, Early*
- citizenship universal, 2100
- city states, 1996
- commercial policy, 2132
- conquests and annexations, 1840–48, 1870–71
- corn, *dole*, 2002, 2004
- supply, 1994, 1995, 1996
- Danube as frontier, 1984
- decay of, 2109–28, 2191–2208, 2223–34
- symptoms of, 407
- under Diocletian, 2123–24
- Eastern: *see* Eastern Roman Empire
- Eastern religions encouraged, 2033
- economic conditions, 2120, 2135
- the emperor: *see* Roman Emperors
- equestrian order, 2002
- European debt to, 2235–52
- extension under Augustus, 1860
- extent of, 1987
- foreign trade under, 1987
- franchise extended, 407, 1875
- freedmen under, 2003
- frontier problems, 1719–20, 1983–84, 1987, 2130
- frontiers, map, plate *f.p.* 1963
- games and amusements, 2021
- Germanic invaders, 2211–2222
- golden age, 1870, 1963–74
- government methods, 1803, 1980, 2227
- Greek culture in, 1755–63, 1993
- philosophy in, 1902–10
- under Hadrian, 1970, 1992
- hereditary obligation, 2228, 2230
- historical narratives:—
 - (31 B.C.–A.D. 68) 1842–61
 - (A.D. 98–211) 1962–81
 - (A.D. 211–330) 2108–28
 - (A.D. 330–170) 2191–2208
- the imperial idea, 1862–78
- Indian trade, 1492, 2135
- Kushan Empire embassies, 1402
- land investment and value, 1993
- life and society in, 2000–23
- middle classes' plight, 2230
- military influence on imperial succession, 1856
- modern world's debt, 2235–2252
- municipal senates burdens, 2229
- nations under, figures symbolizing, 1992
- object lessons of, 2252
- organization and administration, 1803, 1900, 2250
- paganism, strength in, 2224
- partition of, 405, 2123, 2493
- peace efforts under, 1869
- peasants' plight, 2230
- peoples of, 1996
- Pereia, wars with, 2110–18, 2125, 2102, 2309
- personified, statue, 1875
- Prætorian emperors, 1976
- Principate, 1843–47, 1867
- prosperity under, 2028
- provinces: *see* Roman Provinces
- at Ravenna, 2202–04, 2231; *see further under Ostrogoths*
- reforms and expansion under, 1808
- rise and fall, plate *f.p.* 402; *see also* Historical narratives *above*
- Romanisation not resorted to, 1997
- Roman world 2nd cent. A.D., 1982–90

Roms (the ancient State)—*cont.*

- The Empire—cont.*
- senate: *see* Roman Senate
- separate emperors, 2123, 2127
- slaves under, 2006
- social life under, 2001–2023
- soldiers and warfare, 1720–33; *see further* Roman Army
- sundering of, 2101–2209
- tariffs under, 1985
- taxation, 2136, 2228
- trade, 1987–91, 2120–36
- routes under Trajan, map, plate *f.p.* 1963
- under Trajan, 404; maps, 406, plate *f.p.* 1963
- Vandals' triumphs over, 2203
- Western and Eastern, 2196
- power's decay, 2223
- dissolution, 2256
- women's life in, 2005, 2007
- geography, Ptolemy's maps, 2076–77
- magistrates, powers and duties, 1706, 1793
- military organization: *see* Roman Army
- modern debts to, 2235–52
- nobility, new aristocracy, 1802
- Pro-Republican* (Latin), 897, 1004, 1105, 1592–1600
- proconsuls, 1804
- The Republic*, agrarianism policy, 1703
- alliances, 1610
- amusements, 1813
- aristocrats: *see* Patricians, *below*
- army: *see* Roman Army
- Asiatic expansion, beginnings, 1701
- Augustus professes to restore, 1863
- Aeneas law, 70 B.C., 1820
- Carthaginian treaties, 1418, 1572, 1599
- Wars: *see* Punic Wars
- citizenship, 1167, 1711, 1719
- city idea, development, 240, 404
- civil war, under Caesar and Pompey, 1785
- clans (*gentes*), 1800
- coinage, 29, 1612
- examples, 1707, 1771, 1776, 1785, 1789–92, 1824
- constitution and organization, 1647–48, 1706, 1795–1808
- not Etruscan, 1800
- corn supply, 1823
- corrupt social conditions, 1368
- decay, 1830, 1808
- democracy, 1053
- economic conditions, 1812
- politics influence, 380, 390
- equestrian or capitalist order, 1813, 1810
- establishment, 1094, 1105, 1600
- Etruria, peace with (451), 1417
- Etruscan occupation, 1160
- power, effect on, 1600
- revolting against rulers, 1094, 1105
- foundation and rise, map, 1592, 1600–12
- franchise, extension, 1768, 1772
- Gauls, influence (334 B.C.), 1604
- government bad in 1st cent. B.C., 2120
- great men of (Ornelli to Augustus), 1831–41
- Greece, conflicts with, 1571
- conquests and intervention, 1679–81
- protection of, 1583
- relations with, 1607
- subject to, 1672, 1682
- Greek culture in, 1754–63
- Hannibal: *see* Punic Wars
- historical narratives:—
 - (624–178 B.C.), 1105
 - (478–360 B.C.), 1261–63
 - (360–280 B.C.) 1417–20
 - (280–202 B.C.), 1670–83, 1680–92, 1600–12
 - (201–133 B.C.), 1684–1701
 - (133–31 B.C.), 1761–93
- life in, 1706–14, 1809–30
- Macedonia, war with, 1677, 1682
- magistrates' powers, 1700, 1708

Rome (the ancient State)—*cont.*

- The Republic—cont.*
- marriage changes under, 1827
- Mediterranean, supremacy, map, 1574
- military strength of confederation, 1005–09
- moral standards, degradation in 2nd cent. B.C., 1695
- patricians, 1800, 1820
- and plebs, struggles, 1253, 1615–63
- plebeians, 1709, 1716, 1810, 1822
- political development, 1253
- population problem, 1712–13
- publicans, assn. of knights, 1820
- Punic Wars, Hannibal in, 1654–66; *see also* Punic Wars
- Samnites conquered, 1612
- Senate: *see* Roman Senate
- slave risings, 1706, 1771, 1775
- slavery under, 1714, 1825, 1828
- social life under, 1705–16, 1809–30
- soldiers and warfare, 1717–19
- sphere of influence, in 2nd cent. B.C., map, 1638
- spirit of, 1705–16
- state, fabric of, 1795–1808
- supremacy established, 1608
- Targuius, expulsion of, 1691
- trades and tradesmen, 1824–26
- the Triumvirate, c. 55 B.C., 1835
- Troy, benefits on, 860
- woman's position, 1825–28
- world power, 407, 1608, 1612, 1685, map, 1638
- See also* Roman Architecture; Roman Art; Romans; Rome, the City
- treasury, 1709, 1800
- urban government, 1807
- women, status of, 376
- See also* Byzantium; Eastern Roman Empire; Holy Roman Empire; Rome, the City
- Roms, Bishops of, 2182
- vestments in 7th cent., 2180
- See* Papacy
- Rome (The City), Ancient, Agrippa's Baths, 2041
- public works, 1840
- Alario captured, 405
- Alban Mount, 1598
- Altar of Peace (Ara Pacis) *see* Roman Art
- aqueducts, 2040
- arch of Augustus, 2000
- Constantine, 1727, 1928, 1929, 2238
- head of Constantine, 1975
- influence on sculpture, 2310
- Severus, 1794, 1981, 2000, 2017
- Titus, 1850, 1916, 1928, 1958, 2018
- architecture of, 1614
- area and population, imperial, 2001
- Atrium, 2010
- Attila's march on, 2207
- Augustus, improvements by, 1869
- Basilica Aemilia, 2000
- of Constantine, 2000
- Julia, 2000, 2013, 2016, 2018
- of Maxentius, 2033, 2034
- Ulpia, 2000
- baths, 2015
- Baths of Caracalla, plate *f.p.* 2020, 2021, 2033
- Diocletian, 2020, 2033
- Titus and Trajan, 2000
- Bellarmin's occupation, 2265
- bird's-eye view of, 2000
- burned by Nero, 1857, 2181
- Caetan hill, 1644
- Campus Martius, 2777
- Capitoline hill, 1745, 2000
- Castel Sant' Angelo, 1971, 2320
- Catacombs: *see* Catacombs
- Cornelius, 1595
- Cestian bridge, 2038
- Circus Maximus, 2000, 2021, 2023
- Clivus Palatinus, 2018
- Clonca Maxima, 2061, 2052, 2233

Rome

Rome (The City) Ancient—cont.
 —Colosseum, 2000, 2023, 2031, 2032, 2051-55, 2056
 —column of Phocas, 2017
 —of Trajan, 1929, 1968
 ——reliefs, 1731, 1966-67, 2040, 2111
 —of Marcus Aurelius, 1931, 1976, 1977, 2210
 —compared with modern capitals, 2028
 —divine patron, 1745
 —drainage, 2051, 2052
 —earliest buildings, 1595
 —early Christian Church in, 2176 :
 see also Christianity and Christians, Early
 ——history, 1251, 1745
 ——settlers, 1598, 1735
 —under the Empire, 2000-28
 ——importance decreased, 2231
 —Etruscan, expulsion of, 1162
 —Flavian Circus, 2021, 2770
 —Forums in : *see* Forum
 —foundation of, 884, 1546, 1590
 —Greeks in early, 2232
 —Hadrian's temple, figures, 1992
 —Hannibal's campaign against, 1559, 1666
 —historical register, fragment, 1607
 —imperial palaces, 2000, 2018
 ——plan of, 2002
 —Isis, shrine of, 2038
 —Livia, portico of, 2000
 —Lupercal, 1595
 —Nero's golden palace, 2044, 2056
 —Oppian hill, 1644
 —Palatine hill, 1595, 2018
 —Pantheon, 2017, 1918, 2033
 —patricians and plebs, 1105
 —Pons Aelius, 2038
 ——Aemilius, earliest stone bridge, 2030, 2038
 ——Fabricius, 2037, 2038
 ——Subleus, 2036
 —Ponte Rotto, 2036
 —population, 2001
 —Porticus Deorum Consentium, 2017
 —the Regia, 1607
 —Republican plan, 1810
 —Rostra, 2000, 2016, 2017
 —sack by Alaric the Goth, 2223
 ——by Gauls, 1252, 1614, 1602
 ——by Goths, 2202
 —Sacra Via, 2018
 —S. Angelo bridge, 2775
 —S. Lorenzo within the City, 2321
 —S. Maria del Sole (circular temple), 1734, 1918
 —S. Paolo fuori le Mura, frescoes, 2484
 —S. Peter's, old, plan, 2185
 —Senate's meeting place, 1798
 —Seven Hills, 1599
 —ship of grain fleet, 1990
 —site, suitability, 1011
 —street scenes, 2027
 —the Tabularium (Record Office), 1914, 2016-17, 2032
 —temple of Castor and Pollux, 1751, 2000, 2016-18
 ——of Faustina and Antoninus, 2000
 ——of Fortuna, 1746
 ——of Julius Caesar, 2018
 ——of Jupiter, 1717
 ——of Jupiter Capitolinus, 1012
 ——of Saturn, 1800, 2016-17
 ——of Venus, 2000, 2018
 ——of Venus and Roma, 2000
 ——of Vespasian, 2017
 ——of Vestal, 1734, 1736, 2000, 2016, 2018
 —theatre of Marcellus, 2000
 ——clintres, 2025
 —tomb of Eurysaces, 1822, 1823
 —Tullia's sieges of, 2260-67
 —unemployed under Empire, 2002, 2001
 —Vandals sack, 2208
 —Velabrum quarter, 2000
 —Vestals' house, 2000
 —wall, Aurelian's, 2120
 —walls, remnants, 1598

Rome (the City), Medieval, 2766-78
 —Ara Coeli, marble steps to, 3107
 —Black Death, memorial, 3107
 —commune (1143), 2735
 —under Gregory the Great, 2708
 —history 8th century, 2751
 —holy war against, 2775
 —Lafrau basilica (17th cent.), 2187
 —papacy and empire struggles, 2774-75 : *see also* Papacy
 —Papal power established, 2325
 —republic (1143), 2771
 —sack by Normans, 2615
 —S. Agnese, basilica, 2480
 —S. Angelo, 2610
 —S. Clemente, basilica, fresco, 2483
 —S. Peter's, emperor's coronation ceremonial, 2769
 ——Michelangelo architect, 3230
 ——money for, by indulgence sale, 3350
 —social life in, 2767-78
 —street of Dark Shops, 2776
 —Tor del Conti, 2777
 —Torredella Milvie, 2766, 2777
 —turrets and spires medieval, 2776, 2777
 —Turre Cartularia, 2770
Rome (the City), Modern, captured by Victor Emmanuel, 4387
 —control of place, 3802
 —declares itself republic, 4369
 —Republican troops enter, 4183
 —S. Susanna Church, 1558
 —siege, French troops at, 4370
 —Stock Exchange, columns, 1922, 1903
 —women's position in, 3086
Rome, King of, Napoleon's son, 4193, 4194, 4196
Romeo and Juliet, picture of Shakespeare's England, 3567
Rome, See of : *see* Papacy
Romme, and the Revolutionary calendar, 4135
Romney, George, Beaumont family by, plate f.p. 4218
 —Edmund Burke by, 4431
 —John Wesley by, 4204
 —William Cowper by, 4309
Romald, ruler of Lombard, 2352
Romualdus, of Salerno, archbishop, 2099, 2761
Romulus, burial place, 1595
 —descended from Aeneas, 872
 —head on coin, 1615
 —and Remus 1594-95, 1612
Romulus Augustulus, emperor, de-position, 2234, 2255
 —usurpation of crown, 2209
Rondels, in armour, 2033
Ronsard, P. de, Hellenic odes, 4040
Röntgen, W. K., discoverer of X-rays, 4704
Rood, Theodorick, early printer, 3192
Rooke, Admiral, captures Gibraltar, 3750
Room, Von, and Prussian army, 4370
Roosebeck, battle of, 3035
Roosevelt, Theodor, 4714, 4715
 —and Central American, 4727
 —and Civil Service reform, 4510
 —and independence of Panama, 4336
 —and national forests, 4506
 —and Russo-Japanese War, 4520
 —supporters in National Convention, Chicago, 4721
 —and the Supreme Court, 4510
 —and Treaty of Portsmouth, 4570
Ros, or Rhos, people, origin of, 2023
Rosary, probable origin, 1506
Rosas, Juan M., dictator of Argentina, 4325, 4326-27
Rosen, Baron, and Treaty of Portsmouth, 4570
Rosenfeld : *see* Kamenev, Leon
Rosetta, sculpture from temple, 1023
Rosetta Stone, 23, 1686
Rosbach, Frederick the Great at, 3900
Rossi, assassination, 4368
Rothnel, Lombard ruler, 2352
Rothenberg, surrenders to Gustavus, 3019
Rothschild Family, gold smuggling, Napoleonic wars, 4139

Rumania

Rouen, siege by Henry V, 3129
Rougé, Prof. de, on Scientific alphabet, 1075, 1079
Roum, Sultanate of, establishment, 2645, 2650
 —Seljuk dynasty established, 2787, 2791
Roumanes, Transylvania, rejoined with Rumania, 4883, 4936
Romania : *see* Rumania
Round Barrow, tombs in section, 634
See also Barrow Tombs
Rondel Barrow Race, origin, 633
Rousseau, Jean Jacques, 4063, 4306
 —aristocracy of intellect, 4123
 —effect of Social Contract, 4129
 —fallacious theories 5082
 —and individuality, 4305
 —influence on German thought, 3052
 —on Pont du Gard, 2012
 —Romantic movement, 4302
 —social doctrine, 4065
 —and women's society, 383
Rowlandson, Thos, an introduction at Bath, 4254
 —toll-gate, Sutton, 4331
 —Vanhook Gardens, 4242
Roxana, wife of Alex. the Gr., 1108, 1113, 1458
 —birth of son, 1409
 —murder of, 1413
Royal Academy, colonial president, 4019
Royal Exchange (London), in 1829, 4427
Royal Fortune, Roberts' ship, 3800
Royalists (in England), Puritan satires, 3717
 —typical soldiers, 3728
See also Civil War
Royalists (in France), 4280
Royal Mail Steam Packet Co., and Latin America, 4327
Royal Niger Company, formation, 4029
Royal Prerogative, limitation, 3603
Royal Society, colonial fellows, 4018
 —founder and first fellows, 3826
 —and law of gravity, 3825
 —no theological discussions, 4050
Royal Soc. for Prevention of Cruelty to Animals, 4401
Rishchev, Russian scholar-saint, 3081
Rubber, in Brazil, 4330
Rubens, P. P., Ignatius Loyola and Francis Xavier by, 3689
 —Marie de' Medici by, 3585
Rubicon, crossed by Caesar, 1785
Rubnig, W., amongst Mongols, 2847, 2853
Rudel, Jaufre, prince of Blaye, troubadour, 2965
Rudolf I, of Hapsburg, emperor, 2820, 2845, 3005
 —election, 2820, 2829, 3002
Rudolf II (emperor), 3480, 3583, 3584, 3588
 —cedes Hungary to Matthias 3588, 3589
 —father of Count Mansfeld, 3636
Rudolf III, king of the Arelate, 2504
Rudolf, K. of France and Burgundy, 2495, 2506
Rudolf of Swabia, elected emperor, 2649
Rudyard, Sir B., on Puritans, 3700
Ruffs, Elizabethan, satire, 3565
Rufinus, prefect at Constantinople, 2200
Rufus, of Ephesus, 1508
 —on structure of the eye, 2072
Rufus, Musonius, teaching of, 1900-07
Rufus, Pompeius, consul, 1772-73
Rügen, Isle of, worship of S. Vitus, 3014
Rugians, tribe, 2207
 —settlement in Rætia, 2258
Rugila, king of Huns, 2205
Ruhr, French evacuation, 4892
 —occupation 4912, 4913, 4890
 —German troops in, 4387
Rukn el-Din Eibars, war against Latin states, 2805
Rumania, Bronze Age axes from, 860
 —debt to Byzantium, 2039
 —enters Great War, 4705
 —Invades Hungary (1919), 4883
 —modern kingdom, 413, 3617
 —Stone Age painted ware culture, 772
See also Danube

Rumanians

Rumanians, basis of stock, 2478
 —name origin, 2472
 Rumelia, Eastern, Alexander of Battenberg, first king, 4555
 Rumungum, 18th cent. plan, 2062
 Runie Alphabet and Writing, Anglo-Saxon use, 2446, 2450
 — — — Gothic influence on, 2222
 — — — inscriptions in, 2446, 2456
 Running, ancient Greeks, 1318–19, 1320, 1321, 1327
 Rupert, Prince, Lely's portrait, 3711
 — called Cromwell 'Ironsides', 3728
 Rurik, Russian hero, 2510, 2523
 Russia, king of Urartu, 885
 Rushbury, Henry, Daylight Raid on London, 4825
 Ruskin, John, 4331
 — housing scheme, 4409
 Russell, Admiral, at La Hogue, 3749
 Russell, Lord John, Whig leader, 4435
 Russia, 3917–42
 — alliance with France (1893), 4502
 — with Frederick the Great, 3902
 — appears as power, 3754
 — Bulgaria's early conflict with, 2478
 — Byzantium, debt to, 2639
 — civilization, early, 2817
 — early races, 1127
 — 18th cent., new power, 3877
 — empire, foundations of, 2523
 — English trade, first, 3570
 — fairs, medieval, 2901
 — Finnish name for, 2472
 — founding and early extent, 2510
 — German trade settlements, 3051–52
 — Germany, rift with (1878), 4553
 — Greek culture, traces of, 1543
 — G. Britain, pre-war entente, 4573
 — in Great War, 4749–52, 4758–61, 4764–66, 4769–71
 — — advance in E. Prussia (1914), 4719
 — — Brucé-Litovsk peace, 4953, 4956
 — — final collapse, 4772
 — — Hindenburg's invasion, 4749
 — and India, 4468
 — Iranians in, 1127
 — Japan and: see Russo-Japanese War
 — Jenkinson's map, 3573
 — Mongol invasion, 2817, 2839
 — name origin, 2473
 — parliament: see Duma
 — under Peter the Great, 3701, 3887, 3933–37
 — Polish rivalry begin, 3480–81
 — pre-Revolution conditions, 4941
 — racial elements, 308, 2359–60
 — the Revolution, 4773, 4940–55
 — causes of, 702, 4939–43
 — effect on Allies, 4771
 See further under Russia, Bolshevik
 — rise of middle classes, 4441
 — rising power, 10th cent., 3480
 — E. Roman Empire trade, 2639
 — under the Romanovs, 3917–42
 — romanticism in, 4313
 — socialism in, 4938, 4990
 — Soviet, Powers and, 4879
 See further under Russia, Bolshevik
 — succession problem, 3887
 — tsar, first use of title, 3480
 — tsarist, not properly an empire, 398
 — under tsars, early, map, 3918
 — Turkey at war with, 3912
 — Viking penetration, 2520
 Russia, Bolshevik, 4038–76
 — agrarianism in, 5073
 — communism in, 4895, 4898, 4990
 — economics, 306, 4957, 4967–71, 4990, 5076
 — female warriors, 373, 375, 4953
 — Finland, state of war with, 4881
 — Marxists, failure, 4990, 5076
 — Soviet, powers and, 4879
 — war with Poland (1920), 4880
 Russian Alphabet, simplification, 1062
 Russian Church, Bolshevik attack on, 4972
 — — founding and organization, 2638
 — — Living Church, Bolshevik, 4972
 — — pre-Revolution church, 4941
 Russian Literature, beginnings, 2637–38
 — under Catherine the Great, 3942
 — under Ivan the Terrible, 3926

Russian Poland, Slavs' original habitat 2474: see also Poland
 Russo-Japanese War, 4423, 4567–69
 — — — defensive weapons, 4799
 — — — effect on middle classes, 4442
 — — — Russian revolutionaries and, 4941
 Rutherford, Samuel, Lex Rex, 3703
 Ruthwell, cross with runes, 2456
 Rutihus Namatianus, poet, 1898
 — — — praise of Roman Empire, 1629
 2001, 2223, 2225
 Rutius, C. Marcius, plebeian, 1653
 Rye, flats, origin, 23
 Ryotwari, taxation in India, 4452
 Ryswick, Peace of, 3749, 3754
 Saalburg, Roman fort, 1729
 Saarbrücken, battle of, 4385
 Saba, privateers capture, 3813
 Sabazius, Attis' fusion with, 2086
 Sababab, Witebes', 3251, 3260, 3261–62
 Sabellians, relations with Rome, 1252, 1005
 Sabellius, on Nature of God, 2331
 Sabines, 1600, 1606
 Sable Island, Gilbert's ship lost at, 3574
 Sabre-toothed Cat, group, 133–34, 190
 Sabktagin, of Ghazni, 2513–14
 Sachs, Hans, caricature by, 3353
 Sackenspiegel, 2841
 Sacred Marriage, Athenian rite, 3290
 Sacrifice, Aztec, 3369
 — Chinese vessels, 1226
 — Greek, 1279, 1305
 — human, 354, 826, 1626, 3369
 — to Minoan goddess, 763
 — Roman, 1739
 Sacagawayman, 2593, 2399
 Sadducees, 1934, 1960
 Sad'i, poet, quotation from, 2786
 Sadler, Michael, and child labour, 4361, 4404
 Safeguarding (in Great Britain), 4478
 Saffron, in Middle Minoan frescoes, plate f.p. 608
 Saffid or Sofy (dynasty), 3481
 Sagalassus, Shakhnash from, 793, 794
 Saghalien: see Sakhalien
 Saggiuntum, 1579–81
 — Iannibal destroys, 1583
 — Roman remains, 1580
 Sahagun, B. de F., description of Aztecs, 3371–75
 Sahak, Scriptures translated by, 2038
 Sahara, 226, 3359, 3391
 — Carthaginian routes, 1181
 — exploration, 4629
 Sa-Hathor, Egyptian gold-miner, 359
 Sahn-ra, Egyptian ruler, mercantile marine under, 426
 — reconstruction of pyramid, 507
 Sahynn, Crusaders' castle, 2309
 Saif ed-Din Kalawun, and Crusades, 2506
 St. Albans, Abbot de la Mare, 3417
 — Cathedral, 2717
 — Peasants' Revolt at, 3102
 — prior of monastery, 2278
 — sacramentary from abbey, 2959
 St. Antoine, battle of, 3599
 St. Arnaud, Marshal, 4373
 Saint-Aubin, Augustin, a saint, 3990
 S. Bartholomew, Massacre of, 3465–6
 — — — Pope's approval, 3470
 — — — scenes, 3466
 S. Bartholomew's Hospital, 5040
 S. Catherine Island, buccannering headquarters, 3312
 St. Christopher (St. Kitts), colonised, 3809
 St. Clair-sur-Epte, Treaty of, 2408–97, 2603
 S. Clement Danes, London, tower, 4240
 St. Croix, Canada, first settlement, 3518
 St. Cyran, Abbé, at Port Royal, 3860
 S. Denis, Paris, 2883, 2956
 Sainte-Benoite, on Romantideam, 4297
 St. Gall, Swiss canton, 2680
 St. Gall, Abbey, in Carolingian Period, 2438–39, 2441, 2680
 — — — Irish learning at, 2086–87
 — library and achonis, 2687

Salamanca

St. Gall Abbey—cont.
 — — — nationality of monks, 2681
 — — — plan, 2441
 S. George, Order of, royal members, 2976
 St. George da Mina, Portuguese base, 3531
 S. George's Hospital, London, 5046
 St. Germain, Abbey, revolutionary massacres, 4772
 St. Germain, Treaty of (1570), 3404
 St. Germain-en-Laye, Treaty of (1919), 4877
 St. Gothard, battle of (1664), 410, 3751
 St. Helena, E. India Company in, 3551
 — — Longwood, 4198
 — — Napoleon at, 4198, 4199
 S. Isaac, cathedral, St. Petersburg, 3933
 S. James of Compostella, Order of, 2977
 St. Jean-de-Luz, Louis XIV married at, 3739
 St. John, Mrs., Cromwell's letter to, 3725
 S. John's Disease, after Black Death, 3111
 S. John of Jerusalem, Order of, Napoleon and, 4184
 See also Knights Hospitallers
 Saint-Just, L. A., 4175
 St. Lawrence, English ships in (1759), 3901
 — — French colony on, 3889
 St. Leu-d'Esseret, Jacquem, 3091
 St. Louis, strikes in (1886), 4517
 St. Mary-le-Fields, London, 4215
 St. Mary-le-Strand, London, 4240
 St. Maur, Congregation of, 2283
 St. Maur-des-Fosses, abbey and musical culture, 2959
 St. Michel, U.S. troops at, 4782
 S. Paul's Cathedral, 3241
 — — — Donau's effigy, 3712
 S. Paul's, Old, in Elizabethan times, 3557
 — — — first building, 2460
 — — — south ambulatory, 3241
 — — — thanksgiving (1588), 3480
 — — — the Walk, Elizabethan, 3557
 S. Paul's Cross, proclamations, 3553
 St. Petersburg, Bloody Sunday in, 4941
 — — factory women, 4940
 — — in late 18th century, 3033
 — — Narva Triumphal Arch, 4942
 — — Winter Palace, 4942
 See also Leningrad; Petrograd
 St. Pierre, Abbé de, on Peace of Westphalia, 3631
 St. Riquier, monastery, 2441, 2442
 Saints, Battle of the (1782), 4507
 Saint-Simon, Camille de, 388, 4980
 — — — school of socialism, 4979
 Saint Simon, Duc de, on the Maistreton aqueduct, 3897
 — — — and the Marquis de Thilange, 3995
 — — — Memoirs, 4012
 S. Stephen, crown of, 3151,
 — — — Maria Teresa and, 3591
 S. Stephen's Chapel, London, 3670
 S. Vitus's Dance, after Black Death, 3111
 Sais, royal city, 1014
 Saife: see under Egypt
 Saivas, belief, and derivation, 2403
 Sakere, son-in-law of Akimaton, 606
 Sakhalien, Ainu culture, 2383
 — bear cult in, 189
 — non-Mongol races in, 441
 Sakiyas, relationship with Buddha, 1212
 Sakje Guenzi, carving of lion hunt, 726
 — excavations, 591
 — palace gateway, 724
 Sakkarra, funerary group, 498
 — pyramid, 424, 504
 — relief from tomb of, 500, 501
 Sakutafala, Indian poem, 2209
 Saladin, 2741, 2742, 2744
 Salamanca, battle of, 4104

- Salmis, Athens seized, 1093
 —battle of, 400, 402, 1100, 1101-02
 —significance, 1183
 Salerno, 2692-93, 2694
 —medical school, 2542, 2693
 Sales, S. Francis of, 3805
 Sallian Franks, 2255
 See also Franks
 Sallie Law, in Spain, 4270
 Salli, Roman priests, 1743, 1749
 Sallustor, M. Livius, censor, 1801
 Salisbury, cathedral, 2376
 Salisbury, Earl of, W. Longsword
 armour, 2929
 Salisbury, Marquess of, 4564
 Salisbury, Oath of, 2613
 Sallust, 1888, 1890
 Salmeron, disciple of Loyola, 3682
 —at Council of Trent, 3686
 Salmo, ancestor of, 114
 Salome, d. of Herodias, 2625
 Salou, in England, 4216
 —in France, 333, 3990
 Salonic, Allies in, 4701
 —Greeks occupy, 4682, 4533
 Salonia (A.D. 260) coin, 29
 Salt, early production of, 635
 —evaporation methods, 106, 103
 ——Hall-tatt, 933, 934
 —Halstatt mines, 636, 921, 923, 934
 Salvador, Central America, 4326
 Salvation Army, 4409
 —suppressed in Russia, 4072
 Salvia, apologist, 2230
 Salzmann, C. H., German educationist,
 3953
 Samanid Kingdom, Persia, 2779-80
 —administration, 2780
 —tomb of emir, 2781
 Samaria, Ahab's palace, 822
 —Assyrian capture, 830, 886
 —Herod rebuilds, 1871, 2000
 —Herod's palace, 1871
 —Jews conquer, 1935
 —under Roman rule, 1871
 —Shalmaneser V besieges, 885
 —Syrian siege, 820
 —in time of the Exile, 1044-45
 Samaritans, relations with Jews, 1044-
 45, 1930
 —and the Mosaic code, 1045
 —on Mount Garizim, 1051
 Samarkand, conquest (712), 2350
 —medieval trade centre, 2011
 Samarra, Mosque ruins, 2536
 Sambre, Battle of the (1618), 4784
 Samana, settlements, 1058
 Samland, amber at, 1988
 Samman Burj, or Jasmine Tower, 3775
 Sammuramat, Assyrian queen, 890
 Samnates, Campani and, 1602
 —Etruscans defeated, 1252
 —gladiator, 1410, 1716
 —Greek fights with, 1604
 —ruler, 1252
 —in Social War, 1772-73
 —wars with Rome, 1418-19, 1002-06,
 1212
 Samoa, New Zealand and, 4041
 Samos, under Athens, 1238, 1245
 —under Persia, 1092
 Samoyedes, racial characteristics, 232
 Samson, and Philistines, 813
 —wrestling with lion, 2628
 Samson, Abbot, Carlyle's account, 18
 Samson, S., on Britain, 2445
 Samsonov, General, in Great War, 4798
 Samudragupta, 2209, 2400
 —gold medal, 2401
 Samuel, of Bulgaria, 2512
 Samurai, 4411, 4415
 San Agustin, stone carvings, 2508
 Sanehi, Buddhist shrine, 1212-13
 Saneho IX, of Castile, capture of
 Calatrava, 2060
 Sancho (the Fat), of Leon, 3290
 Sanctuary, Irish limits, 2674
 Sanctuary Wood (Ypres), 4311
 Sand, in prehistoric times, 83
 Sand, George, 4312
 Sand-crouse, cured, Babylonia, 572
 San Domingo, American suzerainty, 395
 Sandracottys: *see* Chandragupta
 Sand Reckoner, system of Archimedes,
 2000
 Sand River Convention, 4619
 Sandstone, characteristics, 81, 86
 —for Egyptian temples, 704
 Sandstone, Old Red: *see* Old Red
 Sandstone
 Sandwich, Earl of, Gillray Cartoon, 423
 Sandwich Islands, annexed by U.S.A.
 4639
 Sandwich, John, and Wat Tyler, 310
 Sandys, Sir Edwin, 3667, 3671
 Sangala, Punjab, 1490-91
 San Germano, Richard of, 2705
 San Germano, Treaty of, 2823, 2840
 San Gimignano, church frescoes, 2777
 San Girolamo, Museum tomb, 1172
 Sanitary Act (1888), 5040
 Sanitation, earliest English efforts, 5044
 —in India, 4471
 —of Minoan palaces, 600
 —Roman, 2052-53
 —16th cent. regulations, 3114
 —Versailles, absence of under Louis
 XIV, 3859
 Sanjar, Seljuk ruler, 2791-93
 San Juan Fernandez, plundered, 3816
 San Juan Teotihuacan: *see* Teotihuacan
 Snakracharya, opposition to Bud
 dhism, 2401
 Sankey Canal, first in Britain, 4345
 San Martin, José de, 4276, 4277
 —crossing Andes, 4322, 4323
 San Ramo, conference, 4387
 San Romano, rout of, 2209
 Sanscelotte, Louis XV as, plate f.p. 409
 —standard bearer, 4113
 Sanskrit, alphabet, 1062, 1063
 —Brahmans use, 1879
 —drama, 1505
 —Greek words in, 1504
 —in Hinduism, 2100
 —language of the gods, 2304
 —structure and development, 325
 Sansovino, J., statue by, 4562
 San Stefano, Treaty of, 4308, map 4581
 Santa Ana, A. L. de, Mexican president,
 4276, 4277, 4337
 Santa Cecilia Society, Charleston, S.C.,
 4018
 Santayana, G., on Dickens, 4540
 Santiago, S. James' burial place, 2481
 Santo Domingo, 4339
 —U.S.A. financial relations, 4727
 Santos, draining of, 4331
 Santo Spirito, buccaniers at, 3813
 Sanuto, Marino, 3060
 Sanzio, Raphaelo: *see* Raphael
 Sao Paulo, coffee in, 4330
 —revolt in, 4331
 Sapor I (Shapur), of Persia, 2117
 —Roman emp. Valerian captured,
 2116-17, 2118, 2316-18
 —triumph of, 2316
 Sapor II (the Great), of Persia, 2102,
 2194, 2197
 —conflicts with Rome, 2191-92
 —Constantine's letter, 2310
 Sappho, Greek poetess, 377, 1047
 —poetic remains, 1180-91, 1340
 —vase painting, 1343
 Saraceno Architectura, 2530-38
 —characteristic devices, 2536, 2539
 ——Omnical period, 1949, 2356, 2539
 —in Sicily, 2540, 2760
 See also Mohammedan Architecture;
 Moorish Architecture
 Saraceno Art, 2530-41
 —Abbasid school, 2339
 —astronomical drawing, 2535
 —MS. of Hariri, 2531-33
 —Saladin, portrait of, 2742
 See also Moorish Art
 Saracens, 2205, 2361
 —Byzantine attacks, 2498
 —conquests, 2546
 —European power reduced, 2498, 2818,
 2827
 —fleet, 2348
 —Pisa cathedral and, 2755
 See also Arabs; Moors
 Sargossa, Alfonso I captures, 2659
 —Mulejar work in, 3274, 3278
 Sargossa, Treaty of (1529), 3658
 Saratoga, British surrender at, 3900
 Sarawak, English rajus, 4626-27
 Sarbatu, tree, 957
 Sarcophagus, of Alexander, 1130-34,
 plate f.p. 1431
 —Cartaginian, 1618-19, 1621
 —Egyptian, 705, 1016
 —Etruscan, 1171-73
 —painted, from Hagia Triada, plate, 753
 —Roman, 1930, 1932, 2006
 —from Asia Minor, 1931, 1932-33
 See also Tombs
 Sarda Canal, in the Taro, 4472
 Sardanaulus, Greek Ashurbanipal, 889
 Sardica, Council of (343), 2483
 Sardis, bronze warrior from, 794
 —Cartaginians in, 1032
 —and Crimean War, 4375
 —long-heads in, 214
 —Phoenician occupation, 1180
 —Pisa rules, 2757
 —primitive man in, 214
 —Roman possession, 1578
 —Saracens in, 2540
 —Shidani peoples, 695, 703-91, 1160
 —stone monuments in, 614
 —and Treaty of Utrecht, 3760
 —Victor Emmanuel restored, 4107
 Sardinia, Athenians capture, 1005
 —Cyrus captures, 1080
 Sardis, of Urartu, 881, 885
 Sargadwari, Indian lingam cult, 3172
 Sargent, John, Gassed, 4794
 Sargon, of Agade, 431, 521, 654
 —and India, 730
 ——inscription about tin, 635
 ——Marduk and, 417
 ——Samarra attacked, 830
 ——statuette of period, 511
 Sargoo II, king of Assyria, 835
 —palace at Khorsabad, 948
 Sarmatians, Marous Amellus and, 1075
 —military tactics, 2310
 Sarmiento, D. F., president of Argen-
 tina, 4328
 Sarmiento, Pedro, history of Inca, 3378
 Sarmizetusa, Trajan occupies, 1007
 Sarnath, Buddhist sculpture at, 1216
 Sarsola, v. of Geyva of Hungary,
 Christian influence, 3150
 Sarpi, Paolo, 3048, 3248
 —on the state, 3608
 Saskatchewanan, John Dominon, 4607
 Sassanids, Persian dynasty, 2113,
 2306-28
 —art, 2312, 2316-17
 —at Ctesiphon, 2315
 —dynasty, 2113, 2307, 2313
 —empires revived, 2263
 —Parthia under, 1081
 —Persia under, 2307-2318
 Sassoon, Siegfried, 5010
 Satan, Mohammedan teaching, 2374
 —sent at Pergamum, 1878
 See also Devil
 Satapatha-Brahmana, 357
 Sataspes, Persian traveller, 1181
 Salem Languages, Indo-European group,
 807
 Sati: *see* Suttee
 Satire, Roman, 1894-5
 —modern, 2247
 Satraps, 1143, 1148
 Satsuma, Japanese, 4414, 4415, 4416
 Satrap, Prince of, head of Marathas,
 4444
 Sauras, Anglo-Saxon, 2107
 Sauras, god, 74
 —agricultural connexion, 1711
 —Buddhism and, 1982
 —Cronus and, 1714
 —temple, 1982
 Saturnalia, 1741, 1828
 Saturnian Verse, on Scipio's tomb, 1006
 Saturnian, revolt, 2121
 Saturninus, L. Antonius, revolt, 1809
 Saturnus, L. Apuleius, 1771, 1800
 Saturnus, Vigellius, Christians persecu-
 ted, 2184
 Satyr, drama, 1354
 Saul, Hebrew king, 676, 825
 —body exposed on Beth-shan, 810
 —kingdom established, 810
 —imitations of power, 810
 Saurorophus, fossil, 120
 Saurorophus, portrait on coin, 34
 Sauropoda, prehistoric, 121

Savanna, or parkland, 311
 —conditions of life in, 336, 340
 Savannah, Georgia, in 1733, 4012
 Savannah, s.s., crossed Atlantic, 4354
 Save, river, Roman city on, 1984
 Saver, Thomas, steam engine, 4351
 Savonarola, Girolamo, 3247-49
 —execution, 3273, 3233
 —on parliament, 2758
 —as political leader, 3299
 —teachings, 3220
 —vision, 3298
 Savoy, State, joins Allies (1708), 3757
 —Sicily acquires, 3760
 Savoy Palace, London, destroyed, 3101
 Sawkins, Richard, buccancer, 3816
 Saxe, Marshal, 3893
 —on wearing armour, 2036
 Saxo Grammaticus, History of the Danes, 2211
 Saxons, architecture, 2469
 —burials, map, 2450
 —as colonists, 316, 318-19
 —in England, 2271, 2444-70
 —place-names, map, 302
 —under Norman rule, 2614
 —racial factors, 309, 318-19
 —royal line of, 2058
 —ship, 2452
See also Anglo-Saxon
 Saxon Shore, in Roman Britain, 2150
 Saxony, aristocratic dignity in, 3943
 —Charlemagne conquers, 2417
 —Frederick the Great invades, 3900
 —Henry IV conquers, 2647
 Sayce, A. H., archaeologist, 11, 502, 635
 Sayers, James, John Wilkes, 4439
 Sayes Court, Peter the Great at, 3937
 Sayf al-Dawla, Arab prince, 2535
 Sayid, Indian dynasty, 3176
 Scaevola, Quintus Mucius, against Marcius outlaws, 1772
 —on religion, 1809
 Scala, Martino della, 3039
 Scalawag, meaning, 4402
 Scales, Greek use, 1545
 Scales, musical, 2950
 Scaligers, at Verona, 3038
 Scalpel, Greek, 1477
 Scamander, river, 354
 Scanderbeg, Albanian hero, 3124
 —helmet, 3124
 Scandinavia, Bronze Age in, 911, 912, 917, 920, 930-40, 944
 —chess figures, 12th cent., 2606
 —early expansion, 2520
 —geology, 84, 90
 —iron ore in, 2521
 —jewelry, 2522
 —king, early, 2600
 —kingdoms united, 3134
 —languages, 327
 —Roman trade, 1087, 2135
 —stone carving, Gotland, 2528
See also Denmark; Northmen; Norway; Sweden; Vikings
 Scantilla, Manlia, portrait, 1979
 Scapa Flow, 4811
 Scarab, Egyptian, 699, 700, 1026
 —Minoan, 599
 —occult meaning, 650
 —Phoenician-Egyptian, 1011, 1026
 Scarborough, in 18th century, 4254
 —Germans shell, 4812
 Scarlat Fever, Fothergill's study, 5043
 Scarron, P., husband of Mme. de Main-tenon, 3867
 Scepticism, Greek, 1466
 Sceptre, Egyptian, 502, 698
 Scharnhorst (ship), at Portsmouth, 4837
 Scheer, R. von, German Admiral, 4846
 Schellenberg, lines stormed, 3759
 Schiller, Friedrich von, 3955-60, 3966
 —correspondence, 3902
 —cost of living, 3976
 —on Frederick the Great, 3058
 —house at Weimar, 3967
 —Kant's influence on, 4073
 —monument at Weimar, 3963
 —opinions, 3963, 3951, 3967
 —The Robbers, 3960, 3961
 —and romanticism, 4310
 —and Storm and Stress move-ment, 3959
 Schiller, Lotte, portrait, 3966

Schilling, Joannes, 4389
 Schleswig, duchy, 3134
 Schlemann, H., discoveries, 778, 858
 —excavations of Troy, 601, 853
 Schmalkalden League of, 3312, 3316
 Schmeller, J., drawing of Humboldt, 3962
 Schnabel, J. G., German author, 3950
 Schnorr von Karolsfeld, Hans, drawing of Kant, 3948
 Schoffer, Peter, and Gutenberg, 3185
 Scholar, German, 3958
 Scholasticism, 3016-21, 8026
 —founts of knowledge, 3017
 —German, 18th cent., 3968-69
 —overthrow, 3323
 —schoolman and lecturer, 3015
 —unproductiveness, 3320
 Schöenberg, return to classicism, 4317
 Schöenbrunn, gardens, 4299
 Schoole, Atholnian, 1285
 —at Charlemagne's court, 2437
 —in England (18th cent.), 4244, 4245
 —Norman, 2720
 —Tudor, 3500
 —in Germany (18th cent.), 3963
 —in Italy, 3219
 —medieval, 3444, 3447
 —Sumerian, 531-2
See also Education
 Schubert, F. P., 4316
 Schurz, Carl, U.S. reformer, 4510
 Schwabich-Hall, town hall, 3970
 Schwann, father of biology, 4527
 Schwarzer, Philip: *see* Melancthon
 Schweinitz, family, motto, 2981
 Schwyz, Swiss canton, 3087-88
 Science, Alexander the Great and, 1486
 —Alexandrian school, 2061
 —Aracl's influence, 3290-91
 —Aristotle's influence, 1482
 —Assyrian and Babylonian, 971
 —Bacon's influence, 3330
 —biological, origin, 298
 —in colonial America, 4018
 —and French Revolution, 4135
 —Galen's influence, 2079
 —Greek, 1186, 1407-86, 2061-82
 —debt to, 1567
 —origin, 1004
 —religion and, 1377
 —among Hindus, 2405-6
 —history contrasted with, 7
 —and invention, 4096, 4710
 —medieval view, 3291
 —and Mesopotamia, 946, 972
 —and modern industry, 4238
 —thought, 4521-34
 —war, 4785-96
 —philosophy of, 20th cent., 5004-12
 —physical, origin of, 297
 —Roman achievements, 2240
 —Thales of Miletus and, 1468
See also individual sciences
 Scindia, Mahdoji, Maratha prince, 4445
 —and the Thugs, 4454
 Scipio, family, tombs, 1646, 1885
 Scipio, father-in-law of Pompey, 1733
 Scipio, Gnaeus, in Spain, 1061
 Scipio, Lucius O. (Asiatius), 1689, 1691
 Scipio, Lucius C. (Barbatus), tomb, 1696
 Scipio, Publius G., in Spain, 1691
 Scipio, Publius G. (Africanus Major), 1691, 1663
 —Carthaginian wars, 1591, 1694-96, 1761
 —grandfather of Gracchi, 1831
 —Greek influence on, 1761, 1763
 —and Hannibal, 1660
 —portraits, 1663
 —religion of, 1762
 —in Spain, 1691-92
 —and tides, 1761
 —at Zama, 1695, 1725
 Scipio, Publius C. (Africanus Minor), 1695, 1767-68
 —Carthage besieged, 1698
 —in Spain, 1699-1709
 Solaveni, raids of, 2476
 Scold's Brank, 3259
 Scorpion, The, Egyptian king, 420
 —mace of, 494, 497
 Scorpis, Roman charioteer, 2023
 Scot, Michael, visit to Toledo, 2541
 Scotia, meaning, 2077

Scotland, baignie introduced, 290
 —Charles I and, 3606
 —Charles II and, 3583
 —Christianity brought to, 2670, 2677, 2678-79
 —church in, 2058
 —economic science in, 4061
 —Edward I invades, 2990, 3063
 —elk in, 136
 —feudalism in, 2658
 —French alliance, 2831
 —Gaelic language in, 1507
 —Goidelic, 1854
 —Hanseatic League in, 3060
 —Knox's ideas of education, 3337
 —Norman rule, 2667
 —Norway and, 2830
 —Ordovician mountains in, 90
 —as papal fief, 2832
 —Picts and Scots, 2155
 —place-names in, map, 302
 —primeval rocks, 84
 —racial differentiation, 300
 —in reformation period, 3402
 —reindeer in, 136
 —Roman remains, 2142, 2143, 2146
 —Antonino wall, 3139, 3140, 3111
 —tribal organization, 314
 —union with England, 3580, 3700
 —Vikings in, 2521, 2525
 —volcanoes in, 94, 102, 110
 —weavers' strike (1812), 4070
 Scott, Sir G. G., designed Liverpool Cathedral, 5041
 Scott, Sir Walter, as historical writer, 11
 —Landseer's portrait, 4310
 —romanticism of, 4309, 4311
 Scotus, meaning, 2077
 Scourge of God: *see* Attila
 Sorbe, Assyrian and Aramaic, 1069
 Soudry, Madeleine de, portrait, 3092
 Sculpture, Aegean, 408
 —Assyrian, 876-91, 959-72, 978-82
 —Aztec, 3360-8
 —Babylonian, 572-74
 —Carthaginian, 1159, 1617-22, 1626-27
 —Chinese (Ming), 3611
 —(T'ang), 2544, 2560
 —Egyptian: *see* Egyptian Sculpture
 —Etruscan, 1170-78
 —Gothic, 2803-4, 2821, 2852-7
 —Greek: *see* Greek Sculpture
 —Hittite, 718, 726-8, 734-8
 —Indian, Buddhist, 1205-18
 —Hellenistic, 1490-93
 —Hindu, 2398, 2400
 —Indo-Sumerian, 450
 —Maya, 2578-9, 2585-98
 —modern, 6032, 6030-7
 —Persian, 1085-86, 1089-91
 —Sassanid, 2366, 2314, 2316
 —Phoenician, 805
 —prehistoric, Aurlingean, 198-200, 253
 —Easter Island, 295
 —Magdalenian, 251-53
 —Renaissance, 3226, 3229-31, 3237-13, 3330
 —Roman: *see* Roman Art, sculpture
 —Sumerian, 523, 530-42
 Scurvy, Lind's treatment, 5017
 Soutage, feudal payment, 2721, 2946
 Scutari, fall of (1913), 4582, 4584
 —hospital base, Crimea, 4374
 —view of, 2288
 Seyros, Greek conquest, 1393
 Scythian Art, 924, plates 926-7, 932
 Scythians, or Scythia, 924, 929-33, 1127
 —Assyria overrun by, 832, 1135
 —bow, 279
 —Cyria the Great and, 855, 2193
 —habitat and movements, 900, 2471
 —raids, 2174
 —rebels against Darius, 1099-91
 —warrior's uniform, 1132
 Sea, man's use of the, 348, 405-8
 Sea Beggars, formation, 3408
 Sea Country, kingdom, 434: map, 512
 Seafaring, Greek, 1034, 1035, 1530, 1541, 1544
 —Egyptian, 353, 425-0, 407, 1535

Seafaring—cont.

- Elizabethan, 3567
- Minoan, 1539
- Phoenician, 805, 1535
- Tudor, 3541
- See also* Ships
- Seaforth Highlanders, 4808**
- Seals, Babylonian, 537, 640**
 - carried by Sumerians, 536
 - Cromwellian, 3732
 - Egyptian, 595
- Minoan, 595, 597, 600, 601, 607, 608, 764, 770, 790, 1539
 - showing foreign influence, 509
- Mycenaean, 784, 788
- Norman, 2658
- Saxon, 2507, 2509
- Sea Lilies, Age of, 97, 98**
- Seaplanes, wartime development, 4789**
- Sea power, Agrippa's conception of, 1840**
 - Athenian, early, 1546
 - colonial expansion and, 3527–51
 - in the Great War, 4831–60
- Sea-Raiders : see** Peoples of the Sea
- Seasons, establishment, 218**
 - in Mediterranean climate, 344
 - primitive reckoning of, 208
 - Thoth as measurer of, 641
- Sebaste : see** Samaria
- Sebastina, S., 3103, 3104**
- Sebastiani, General, Napoleon's agent to East, 4187**
- Sebek, crocodile god, 491**
 - as manifestation of Ra, 739, 740
- Sebekku, autobiography, 559**
- Seckelles, Hérault de, execution, 4175**
- Second Advent, medieval expectation, 3013**
- Secondary Era, of earth's history, 161**
- Second International, founded, 4083**
- Secret Societies, in China, 4643, 4655**
 - Gorinsky, League of the Just, 4984
- Secretarians, Cromwell's plea for, 3720**
- Sects, in England, 19th century, 4281**
 - under Stuarts, 3718
- Securify, Law or Right of, Russian serfdom, 8930**
- Sedan, Americans in, 4784**
 - Napoleon III surrenders at, 4385
- Sedan chair, 4214**
- Sed festival, Pharaonic ceremony, 424**
- Sedeinga, temple to Queen Tiya, 679**
- Sedgemoor, battle of, 3740**
- Seidullus, Irish monk, 2688**
- Seider, of Mesopotamian farmer, 581**
- Seeley, Sir John, on nationality, 3614**
- Segesta, Greek temple, 1787**
- Segovia, Roman aqueduct, 2044, 2046**
- Segrave, Sir H., speed record, 5064**
- Seignelay, marquis de : see** Colbert, J. B.
- Seignat, early history, 2788**
 - painted pottery found in, 456
- Seisukai, Japanese Liberal party, 4422**
- Sejanus, Aedius, prefect, 1859–61**
- Sekenenra I, Egyptian king, 435**
- Sekenenra III, Apopi's challenge to, 435**
- Sekhmet, lion-headed goddess, 645**
- Selden, John, Mare Clausum, 3549**
- Selektion, Darwin on, 395**
- Seleucid Kingdom, 1414, 1584–86**
 - coins, 1700, 1703
 - disintegration, 1702, 1777
 - Greek influence in, 1493
 - Iranian portion of, 1132
 - maps, 405, 1490, 1582
- Seleucus I, Nicator, 1409, 1410–15, 1583**
 - Antioch founded, 1538
 - kingdom of, 405, 1585
 - treaty with Chandragupta, 1480–90
- Seleucus II and III, 1585**
- Seleucus IV, 1700, 1701**
- Self-preservation, Tilly Wyatt on, 5067**
- Selim I, the Ottoman, 3302, 3303**
- Selim II, Ismail el-Safi defeated by, 3481**
- Selinus, river god, on coin, 1475**
- Selinus, Sicily, 1049–53, 1184–05**
 - Carthaginian destruction, 1249
 - temple, metopes and relief, 1053, 1367
- Seljuk Turks, 2770–95**
 - art and architecture, 2785, 2788, 2794–6
 - conquests, 2514, 2782
 - defeat of Byzantine governor, 2787
 - literature, 2790, 2798
- See also* Turks

- Sellasia, battle of, 1584, 1677**
- Selick, David, letters of reprisal, 3811**
- Sem, Egyptian priest, plate f.p. 553**
- Semerket, king of Egypt, 420, 424, 495**
- Semiramis, 889**
- Semites, 228, 511**
 - in Babylonia, 430
 - in Mesopotamia, 511, 981
 - places for worship, 1622
 - and religion, 638
 - and Sumerian gods, 538
 - in Syria, 657
 - and Thothmes III, 662
- See also* Jews ; Sumeria
- Semitic Languages, 323, 1068**
 - alphabet, 804, 1962
 - range, map, 324–25
- Sempach, battle of, 3099, 3099–99, 3091**
- Senan, S. in Book of Lismore, 1515**
- Seneca, Roman : see** Roman Senate
- Senatus Populusque Romanus (SPQR), appearance of phrase, 1805**
- Seneca (the elder), 1893**
- Seneca (the younger), 1894, 1895, 1896, 1897**
 - influence, 1891, 3017
 - on Jews, 1901
 - Nero's tutor, 1856, 1896
 - philosophical works, 1896
 - plays, 1886
 - satire on Claudius, 1875
 - on sin, 1907
 - stoic doctrine, 1905–09
 - style, 1882, 1895–8
 - tomb, 1897
- Senefru : see** Sneferu
- Senerji, formerly Shanai, 833**
 - Hittite deity from, 228
 - relief from, 786
- Sennacherib, in chariot, 837**
 - death, 831, 838
 - Jerusalem assaulted, 830
 - at Lachish, 331
 - Nineveh built, 946–7, 949
 - palace in Nineveh, 946
 - succeeded Sargon II, 830, 837
- Sennemut, fresco from tomb, 753**
- Sens, Council of, 3016**
- Sensuam, battle of, 1420**
- Sensuret I, and Egyptian unity, 428, 544**
 - on immortality, 656
 - tomb of vizier, 557
- Sensuret II, 547, 548, 550**
 - pectoral, 559
- Sensuret III, 427, 428**
 - head of, Cairo, 564
 - Nubia conquered, 561
 - pectoral, 559
 - rebels suppressed, 543
- Septimia, Saracena m., 2361**
- Septimontium, festival, 1509**
- Sequani, tribe, 2212**
- Serabit, Sinai, early alphabetic inscriptions at, 1076, 1077, 1079**
 - mines at, 680, 806
- Serajevo, assassination of archduke, 4587**
- Serapis, Alex. the Gt. and, 1446–47**
 - lust, 1447
 - as Roman deity, 2092
- Serbia, Balkan War and, 4581–85**
 - Bulgaria and, 4555, 4583
 - church in, 2038
 - dynastic quarrels, 4565
 - in Great War, 4749, 4761
 - literature, 2939
 - medieval, 2473, 2479
 - as a nation, 413
 - Slav origin, 2479
 - Turkish war (15th cent.), 3124
- Serb Town, Asia Minor, 2479**
- Seren, Philistine governor, 796**
- Sertidom, 2433, 2461–73**
 - in Byzantium, 2622
 - in Egypt, 499
 - medieval, 2433
 - in Russia, 3939, 4559
 - in Saxon England, 2451
- Sergius III, pope, 2771**
- Sergius, duke of Naples, 2095**
- Sergius, patriarch, 2342**
- Seringapatam, general view, 4448**
 - Tippu killed at, 4110
 - Tippu's palace, 4446

- Serpent, Ashoreth worship, 823**
 - Egyptian symbol of royalty (Uraeus), 538, 699
 - feathered, Maya god, 2591–92
 - goddess, Minoan, 603, 606, plate f.p. 608, 768
 - Inca ornament, plate f.p. 3370
 - sacred emblem, Israel, 821, 1997
 - worship, Jerusalem, 437
- Serrano, Francisco, and Spanish revolt, 4381**
- Sertius, Roman knight, 1991**
- Sertorius, 1773, 1775**
 - military tactics, 1722
 - in Spain, 1773, 1775
- Servant, Egyptian, 707, 710**
 - models, 549, 560
 - in colonial America, 4914
- See also* Slavery
- Servant of the Servants of God, papal title, 2485**
- Serveins, Michael, 3829**
- Servia : see** Serbia
- Servile War : see** Slave War.
- Servilia, Roman lady, 1820**
- Servius Tullius, 380, 1746**
 - walls built by, 1598
- Sesh, Egyptian scribe, 541**
- Ses, structures in Pantelleria, 614**
- Sesostria, Greek form of Semsret, 427**
- Sesius, 1103, 1392**
- Sethet, 550**
- Sethu, conquered by Amenemhat, 550**
- Seti I, Egyptian king, 668, 669**
 - contemp. hippopotamus model, 533
 - mentions Asher, 815
 - mummification under, 669, 703
 - mummified head, 669
 - sneaked by Mut, 647
 - well to preserve name, 650
 - worshipping Osiris, 648
- Setaekt, father of Ramees III, 671**
- Sensenhofer, of Innsbruck, armour-maker, 2041, 2945**
- Serastopol, capture of 4374, 4375**
- Seven against Thebes, 1349**
- Seven Devils, in Assyrian religion, 970**
- Seven Sages of the Bamboo Grove, 2549**
- Seven Weeks' War, 4350**
- Seven Years' War, 3856, map, 3893**
 - French losses in, 3915
- Severus, Roman emperor, 1877–79, 1980, 2126**
 - arch of, 1794, 1981, 2000, 2017
 - coin, 29
 - death, 1980, 2100
 - government, 2110
 - language spoken by, 1883
- Severus, bishop of Antioch, 2340**
- Severus, Libius, emperor, 2208**
- Sevigae, Mme. de, 3561**
 - feminism, 3902
 - letters, 3861
 - on workmen at Versailles, 3837
- Seville, Aléazar, 3275, 3278–79**
 - captured from Saracens, 2827
 - Christian princes, 3267
 - Giralda, 3272, 3273, 3275
 - Jesuit failure at (1944), 3689
- Sevir, Order of the, 1877**
- Sèvres, Treaty of, 4577**
- Seward, W. H., and Alaska, 4520**
- Sewers, Roman system, 2051, 2052**
- Sex, in botany, 2076**
 - separation of, 3684
 - taboos, 360
 - in Victorian literature, 4547
 - and women's status, 366
- See also* Women
- Seragesimal System, 976**
- Sextius, L., consul, 1652**
- Sextus Pompeius : see** Pompeius
- Seydlitz (ship), at Dogger Bank, 4843**
 - at Jutland, 4848, 4849, 4850
- Sforza, Francesco, 3138**
- Sforza, Ludovico, Leonardo da Vinci and 3231, 3242** *See also* Milan
- Shabaka, Nubian king, 880**
- Shadif, in Egypt, 486, 488**
- Shistebury, 1st Earl of, and Louise de Quérouaille, 4004**
- Shatesbury, 3rd Earl of, philosopher, 4051**
- Shatesbury, 7th Earl of, 4861, 4864**
- Shaft Graves, at Mycenae, 773, 787, 809**

- Shagai Plateau, troops on, 1443
 Shah Abbas, captures Kandahar, 3776
 Shahab ad-Din, invades India, 2750
 3161-65
 Shah Alum, 3708, 3709
 —light, 3706
 Sha-ho, battle of, 4668
 Shah-i-Shah, 399
 Shah Jehan, 3773, 3774-78
 —built Jama Masjid, 3780, 3790
 —Pearl Mosque, plate, 3787
 —courage, 3791, 3791
 —halls of public and private
 audience, plate, 3786
 —imprisoned, 3775
 —tomb (Taj Mahal), plate, 3783
 Shahnama, epic of Firdausi, 2313
 Shah Shuja, on Afghan throne, 4458
 —durbars at Kabul, 4469
 —Koh-i-Nor fished from, 3796
 Shah Tahmasp, shelters Humayun, 3767
 Shaiba, battle of, 4754
 Shakalash, people, 794, 1169
 —typical head, 793
 Shakespeare, William, 3333, 3558
 —clerics in plays, 3499
 —drama revived, 3245
 —Greek writers and, 1351, 1350
 —historical themes, 8
 —Italian comedies, 3245
 —and pantomime, 3715
 —in S. Paul's Churchyard, 3557
 —Seneca's influence, 3246
 —translated by Wicliffe, 3053
 —and the natives, 4039
 —view of women, 377
 —Voltaire and, 4046
 Shales, stratification, 194
 Shallum, murder of, 829
 Shalmaneser I, conquered Mitanni, 793
 —dealings with Hatti, 673
 Shalmaneser III, campaigns, 879
 —expedition against Palestine, 820
 —gate of, Balawat, 879, 1535
 —John submits to, 820, 827
 —obelisk from palace, 880
 —stele of, 873
 —temple in Ashur built, 979
 Shalmaneser V, 830, 855
 Shamal, stele from, 888
 Shamanism, in Hungary, 3151
 —tenets, 3140
 Shamash, Babylonian god, 575, 639
 —Canaanite god, 822
 —in Yahwism, 656
 —of Sippar, 639
 Shamash-shum-ukin, son of Esar-
 haddon, 889
 Shams el Ma'ali, emir, tomb, 2781
 Shamshi-Adad I, temple, 979
 Shamshi-Adad V, 880, 881
 Shan Empire, 399
 Shanzhai, foreign settlements, 445
 —riots (1925), 4002
 —treaty port, 4026
 Shang-ti, supreme deity of China, 472
 Shangtu, or Chandu, 2854
 Shannon, and Chesapeake, 4112
 Shansi, frescoes, 3520, 3521
 Shantung, island, 442
 —post-war settlement, 4889
 Shargalsbarri, of Agade, 431
 Shapur: see Sapor I
 Sharp, Bartholomew, buccancer, 3816
 Sharp, Granville, and slavery, 4593
 Sharrukin: see Sargon
 Sharu, doubtful succession, 425
 Sharuben, besieged by Ashmes, 637
 Shashank I, 677, 882
 —Jewish captives, 620
 Shaw, Sir F. C., after battle of Mons,
 4746
 Shaw, G. B., 5014, 5015
 Shawer, wazir of Egypt, 2741
 Sheba, Queen of, 3161-65
 Sheep, domestication, 219, 222
 —in Egypt, 486
 —milk used by Greeks, 848
 —in Patagonia, 4328
 —in Tudor Period, 3187
 —in U.S.A., 4505
 Sheephead (surgus vulgaris), 1474
 Sheikh el Belad, statue, 471, 502
 Shell (biological), 93
 —as Amurrian amulets, 250
 Shell—cont.
 —bill of, from Ur, 517
 —freeze, Tell-el-Obaid, 522
 —as currency, 292
 —lump of, Ur, 519
 —magical significance, 380
 —necklace, from Palaeolithic grave, 357
 —as ornaments, 361
 —symbol of birth, 356-57
 —in Sumerian art (Ur), 517, 519, 522
 Shell (mussel), filling, in British
 factory, 4801
 —woman turning, 369
 Shelley, P. B., 14, 4280, 4314
 —Plato's verse translated, 1362
 Shell-fish, primitive, 92-93
 Shelter, primary need, 288
 Shen Nung, first Chinese husbandman
 444
 Shepherd, early Christian symbol, 218
 Shepherd kings: see Hyksos
 Sheppey, Isle of, fossil palm fruits, 110
 Sher Ali, of Afghanistan, 4468
 Sheraton, Thomas, chair, 4248
 —vogue in Germany, 3973
 Sherida: see Shirdanu
 Sheridan, R. B., as dramatist, 4211
 —satire on, 4433
 Sherman, W. T., Federal general, 4392
 4495
 —ravages of army, 4489
 Sherman Anti-Trust Act (1890), 4515
 Sherman Silver Act, 4512
 Sher Shah, 3360, 3766
 Sher Singh, Sikh leader, 4461
 Shekhar Islands, Vikings in, 2521, 2525
 Shiab, Mahomedan sect, 2351
 Shield, of Achilles, 839, 844, 845
 —Celtic, 1513, 1514, plate f.p. 1521
 —Egyptian, 361, 681
 —German, 2216
 —gladiators, 1816
 —Greek, 816
 —in Heracle Age, 846
 —medieval, 2928-29, 2932
 —Minoan, on vase, 766
 —Mycenaean, 788, 844
 —Norman, 2607, 2632
 —Roman use, 1723, 1731
 —Saxon, 2449
 —of Shirdanu, 793
 —Sumerian, 527
 —Zika's invention, 3146
 Shield, Heraldic, 2980-83
 —divisions, 2981, 2983
 —figures, 2982
 Shih Chou, Chinese writing, 1070
 Shih Hwang Ti, Chinese emperor, 1582,
 1587, 2544
 —Great Wall, 443, 1587-88, 1981
 —Taoist influence on, 2161
 Shikhladi: see Shakalash
 Shiloh, Yahweh sanctuary at, 824
 Shimonoseki, destruction of batteries,
 4412
 —treaty, 4566
 Shingle Rivers, New Zealand, 100
 Shintoism, in Japan, 4420
 Ship money, levied by Charles I, 3065
 Shipowners, Roman, privileges and
 guilds, 2132-3, 2136
 Shipping, British, Great War and, 4094
 —in early China, 3514
 —15th cent. advances, 3438
 —Great War losses, 1855
 —restoration, after War, 4905
 —surrender of German, 4911
 Ships, Carthaginian, 1639
 —Cretan, on seals, 1539
 —Egyptian Empire, 353, 465, 153.
 —pre-dynastic, 36, 39, 463
 —Greek, 1925, 1259, 1511, 1545
 —early, 993, 998
 —merchantsmen, 1035, 1544
 —Spartan, 999
 —tiresmea, 1241, 1639
 —Indian, early, 2495
 —Middle Minoan, 767
 —Moslem Spain (Norse), 3278
 —New England builds, 4021
 —Phoenician, 805, 1535
 —Roman, paddle-wheel, 36
 —overseas trade, 2132, 2134
 —war, 1721, 1732-33
 —Saxoia raids, 2452
 Ships—cont.
 —Tyrian, 1535
 —Venetian trading, 3034, 3038
 —Viking, 2618, 2519, 2527
 See also Boats
 Shirdanu, people, 793-96, 1169
 —mercenaries of Rameses II, 675, 794
 794
 Shire, R., British settlements in, 4632
 Shirin, w. of Chosroes II, 2311-14
 Shirkub, wazir in Egypt, 2741
 Shirley, William, and capture of Louis-
 bourg, 4025
 Shishak: see Shashank I
 Shizoku, Samurai merged in, 4115
 Shoes, Greek, 1257
 —Irish, early, 2686
 —medieval fashions, 2941
 —Roman, 2012
 —Britons, 2146
 Shogunate, government, Japan, 4391
 4413
 Shoguns, Japan, 2989-90
 —passing of, 3482-83
 Shop-lifting, 18th cent. England, 4215
 Shop Stewards' Movement, origin, 4681
 Shore, The, party in ancient Greece,
 1119
 Shore, Sir John, gov.-gen. of India, 4447
 Short heads: see Broad heads
 Short Parliament, call and dissolution,
 3660
 —led by Pym, 3671
 Shotoku Taishi, Buddhist temple of,
 2391
 Shotts, The, salt lagoons, 1173
 Showbury, Tudor house, 3496
 Shrove Tuesday, football on, 4220, 4227
 Shu, Egyptian god, 362
 —Egyptian name for sun, 741
 Shulei, Vasilii, Moscow general, 3927
 Shun Chin, Manchur ruler, first, 4649
 Shun-Ti, Mongol ruler, 2990
 Shuruppak, the modern Fara, 588
 Shushan: see Susa
 Shuwan-dan, governor of Kailah, 804
 Siamang, Pliocene forerunners, 182
 Siamese, racial differentiation, 308
 Siberia, captured by Kolkhuik, 4963
 —Russian colonisation, 3929
 —conquest of, 3924
 —political prisoners, 4943
 Sibir, appropriated by Russia, 3918,
 3921
 Sibyl, w. of Guy of Jerusalem, 2742
 Sibylline books (Oracles), on the Jews,
 1901
 —influence on Roman religion, 1762
 Siollan Architecture, Norman, 2690,
 2695-2700, 2703
 Sicilian Art, fabrics, 2701
 —Monreale Cathedral, as shrine of,
 2690
 —mosaics, 2696, 2703
 Sicilian Expedition, Greek, 1243-45
 Sicilian Poetry, School of, 2704, 2812
 Sicilian Vespers, rebellion, 2331
 Sicily, Carthaginian in, 1058, 1105,
 1250-51, 1631-32
 —Cretan influence, 1539
 —under Dionysius I, 1399
 —under Frederick II, 2819, 2823, 2842
 —Greek, 1104, 1416, 1117
 —colonies in, 1179
 —Expedition, 1213-45
 —struggles in, 1575
 —Garibaldi sails for, 4377
 —modern, Austrian troops enter, 3881
 —Mycenaean age in, 787, 809
 —Norman, 2690-2705, 3133
 —area, 2692
 —conquest, 2616
 —court, 2541, 2704
 —kingdom founded, 2494, 2615-16,
 2691
 —Mahomedan culture in, 3413
 —Richard I in, 2743
 —and Peloponnesian War, 1243
 —Phoenicians in, 1179
 —prehistoric, dolmen from, 621
 —Neolithic culture, 614
 —painted ware, 612
 —pottery of Copper Age, 613
 —in Pyrrhic War, 1673, 1697
 —Roman, 1677, 1705

Sicily—*cont.*

- grain trade, 1544
- slave revolt, 1701, 1766, 1771
- Saracens in, 2424, 2540-41, 2692, 3113
- Savoy acquires, 2700
- See also Syracuse; Two Sicilies
- Sieckingen, Franz von, 3311
- Siecles, clay, Mesopotamia, 513
- Neolithic, 235
- Sieyon, revolt against Macedon, 1071
- school of, painting, 1047
- Siddhartha Gautama: see Buddha
- Sidmouth, Henry Addington, Viscount, 4187
- Sidney, family, home at Penshurst, 3430
- Sidney, Sir Philip, 3235
- cause of death, 2936
- introduced classicalism, 4044
- letter from Ralph Lane, 3800
- Sidon, Assyrian domination, 1177
- cities founded by, 1177
- crafts in Himerie times, 845, 1182
- revolt against Sennacherib, 857
- sarcophagi from, 1430-1434: plate *f.p.*, 1434
- Sidonius, Apollinaris: see Apollinaris
- Sidonius, in Gilgamesh epic, 578, 587
- Sieges, medieval, 2040, 2952
- on Mycenaean vase, 783
- Roman, 1728-32
- Sienna, medieval, 2756, 2757, 2764
- conflicts with Florence, 2750, 3209
- Slane School of Painting, 3010-11
- Sierra Leone, foundation of British colony, 4028
- Henry the Navigator at, 3531
- native making pot, 280
- Sleyds, Abbé Emmanuel, 4157, 4153
- at head of Directory, 4005
- new constitution, 4001
- Sigum, fight for possession, 1513
- Sigibert, king of Austrasia, 2270, 2354
- Sigibert, Merovingian king, 2268-60
- Sigillaria, fossil tree, 107
- Sigismund, Emperor, 2135, 3130-37
- betrayal of John Huns, 3136-37
- betrothal to d. of Lewis the Gt., 3007-08
- Bohemian throne claimed, 3137
- claim on England, 308
- in council with John of Burgundy, 3153
- king of Hungary, 3153
- Nicopolis, defeat at, 3008, 3153
- Sigmund, king of Poland, 3480
- attempt on Sweden, 3580
- Sigurd, in Eddas, slaying Fafnir, 2517
- Siikandra, Akbar's tomb, 3781, 3789
- Sikhe, under Amangzib, 3703
- damaged Mogul monuments, 3781
- officers, 1458
- Sikh Ware, 1457-00
- Sikwaya, Chetoko syllabary, 1002
- Silanus, defeat by German tribes, 1770
- Silbury Hill, barrow, 536
- Silchester, 2148-49, plan, 2150
- early Christian church, 2187
- Silens, identity with Des, 1020
- Silesia, Frederick the Great in, 3891
- linen manufacture in, 3915
- Prussia acquires, 3895, 3980
- restored to Hohenzollerns (1807), 4101
- Silesia, Upper, League of Nations and, 4028, 4020
- Silistria, siege of, 4373
- Silvius Italicus, style, 1894
- Silk, Chinese trade with Rome, 1989-90
- E. Roman empire monopoly, 2020
- industry introduced into Europe, 1980, 2303, 2310
- Moslem Spain, 3281-82, 3286
- Siellian brocades, 12th cent., 2701
- Silkworm, introduced into Byzantine Empire, 2310, 2028
- Silurian Period, 91, plate *f.p.*, 96, 97-90
- Britain in, 97
- sea-lily age, 98
- Silver, as currency, Babylonia, 582
- U.S.A., 4512
- deposition of, 107
- mine, Colorado, 4502
- mines of Ida, 859
- of Laurium, 1121, 1102-63
- in Mycenaean, rare, 780
- in Nevada, 4504

- Silver Age, of Roman Literature, 1892, 1893
- Silva, mother of Pope Gregory I, 2325
- Simeott, Dr., on Cromwell, 3725
- Simeon, in Presentation, Reims Cath., statue, 3864
- Simeon, Bulgarian emperor, 2478-80
- defeat of Magyars, 2499
- Golden Book, 2638
- Simeon Stylites, S., 2328
- Simon, Gen. Antoine, president of Haiti, 4339
- Simon, Sir John, chairman of Indian Commission, 4643
- Simon, Thomas, Dunbar medal, 3720
- Great Seal of Commonwealth, 3732
- Simonides, Greek poet, on Ethiopia, 2169
- Thermopylae, epitaph, 1191
- Simony, Hildebrand's dealing with, 2491
- Simpson, Sir James, anaesthesia discovered, 5049, 5051
- Sims, Admiral, on submarine campaign, 4850
- Sin, confession of, Egypt, 710
- pardon bought by indulgences, 3340, 3350, 3351
- Sin, Semitic moon god, 583
- Sinai Inscriptions, 1076, 1077, 1079
- Sinai, Peninsula of, conquest of, 559
- Egyptian mines in, 680, 814
- Sindh, annexed by Great Britain, 4450
- Arab conquest, early, 2350, 3103
- Singan (Sian), early Chinese capital, 445
- the Nestorian stele, 3509
- Singapore, in 1850, 4027
- Raffles at, 4025
- Singling, primitive, 294
- Sinagaglia, founding of, 1606
- Sink-drain, Babylonian, relig. significance, 531
- Sin-muballit, defeated Rim-Sin, 432
- Sin Fein, Ireland under, 4890, 4900
- Sinuhe, Egyptian writer, 506, 1108
- Siphnos, gold in, 470
- Sippar, duties of king of, 647
- seat of Shamash, 583, 639
- Sirach, Ben, writer of Ecclesiasticus, 1051
- Sirlenis, S., pope, fresco-portrait, 2481
- Sirina Devata, Indian goddess, 361
- Sirius, age of, 63
- in Egyptian astrology, 302-3
- Sirkap, Parthian city, antiquities, 1501
- Siroes, Persian king, 2348
- Sismondi, and laissez faire, 4082
- Sister, marriage with, Egypt, 549
- Sistine Chapel, Michelangelo's frescoes, 3229
- Sistrum, Ahyssinian, 1011
- Egyptian princess using, 714
- worship, 698, 1011
- used by Cretan harvesters, 765
- Sitka, Alaska, main street, 4520
- Situla, Egyptian bronze, 700
- Sitwell, Edith, new poetry, 5019
- Siva, set up in place of Buddha, 2401
- Sivaji, Maratha leader, 3778, 3793
- Sivas, Hittite importance, 719, 731
- Siwa, oasis, Alex. the Gt. at, 1439-40
- Sixtus, bishop of Rome, 2187
- Siyasat Nama, importance of, 2790-1
- Skandagupta, rule and power, 2200
- See also Gupta Dynasty
- Skin, of Africans, reasons for colouring, 209
- dressing, primitive industry, 290
- pigment in man and anthropoids, 183
- prepared for ancient writing, 2105-6
- Skirt, worn by Sumerians, 535, 541
- Skittles, game, medieval, 3454
- Skull, artificial deformation, 207
- in evolution, 151-78
- infant and adult, showing sutures, 227
- long-headed early types, 211
- and short-headed, 195
- modern and primitive, compared, 169
- shape, as index of race, 231
- types, distribution, maps, 196, 210, 230-1
- See also Anthropoids; Broad heads; Long heads
- Skuakha, Scythian chief, 1090-1

- Sky, dead transferred to, 302
- Egyptian view of, 643
- Skye, volcanoes in, 110
- Skytizes, History of, Byzantine MS., 2477, 2510-12, 2514, 2621
- Slander, law in early England, 2455
- Slater, Samuel, and New England industrialism, 4490
- Slaves, in British Isles, 91, 95
- Slavata, and deforestation of Prague, 3590
- Slave Dynasty, India, founding, 2750, 3164, 3167, 3160
- end of, 2833
- Slavery, in Babylonian, 458, 525, 574
- Boer view of, 4617
- in Brazil, 4321, 4330
- in British Empire, 4503-04
- abolition, 4638
- in China, 2100
- negro boy, 2552
- colonial America, 4012
- Crete, possible trade in, 787
- early Christian attitude, 2174-75
- in E. Roman Empire, 2625
- Egyptian Empire, 706-7
- Middle Kingdom, 517
- Old Kingdom, 498, 490-500
- Greek, 1123-24, 1261-63
- Roman, 1092, 2163
- Augustus' reforms, 1808
- badge, 2176
- bargaining for, 1767
- conquered people sold into, 1694
- early treatment, 1050
- under Empire, 2004, 2005
- manumission, 1820
- under Republic, 1714, 1823, 1826
- revolts, 1700, 1771, 1775
- Saxon England, 2451, 2453
- laws concerning, 2462-63, 2463
- in U.S.A., 4278
- abolition, 4400
- Lincoln's emancipation proclamation, 4392
- in West Indies: see British Empire above
- Slaves, The, by Michelangelo, 3229, 3230
- Slave Trade, abolition, 4509
- in Zanzibar, 4034
- in Africa, deterioration due to, 235
- by Portuguese, 3102
- British share in, 4508
- crusade against, 4400
- Sierra Leone and, 4028
- slaves disembarking, 4594
- Slave Wars, 1701, 1714, 1760, 1771, 1826
- Spartacus, 1775-76, 1826
- Slavonic, origin of name, 2472
- Slavonic Languages, 2472-73
- alphabet, 1002
- Cyrillic script, 2037
- modern, 2479
- Slavs, 2471-70
- expansion, map, 2475
- name origin, 2472, 2629
- Sledge, evolution, 291
- Magdalenian and Esch. in, 290
- Slaviv, post-war settlement, 4877
- Slesvig-Holstein, break from Denmark, attempt, 4305
- in 1866, map, 4364
- friction over, 4380
- Slide Rest, introduction, 4368
- Silag, primitive weapon, 283
- Slingers, on Mycenaean vase, 784
- Silvinitza, battle of, 4555
- Slovenes, Slavonic race, 2472
- origin, and language, 2470
- Slughi, bound, Egyptian ancestor, plate *f.p.*, 652
- Sudanese use of the, 480
- Slumming, fashionable pursuit, 4490
- Sluya, battle of, 2008, 3000
- Small-holders, Tudor period, 3490
- Smallpox, effect of vaccination, 5048, 5050
- Goethe a victim, 3073
- inoculation, early methods, 3117
- Smenkhkara, succeeded Akhnaton, 761
- Smerdis, false, claim to Persian throne, 1058, 1141
- Smerdis, a. of Cyrus, 1087, 1141

- Smeti**, Egyptian hippopotamus god, 1023
- Smit**, Gen. N., Boer leader, 4623
- Smith**, craftsman, early mystery, 1520
- Smith**, Adam, 388, 3903
- ethics, 4532
 - and free trade, 4475
 - on home and foreign trade, 4484
 - on joint-stock enterprise, 4990
 - success of Wealth of Nations, 4127
 - Theory of Moral Economy, 4061
- Smith**, G. A., on the Jews, 1951, 1953
- Smith**, Prof. G. Elliot, on the Brown Race, 228
- on Egyptian surgery, 702
 - on evolution, 196
 - on inventions, 219
- Smith**, Capt. John, Founder of Virginia, 3547
- on the pirate Fleming, 3504
- Smith**, Sir John, on discarding of armour 2936
- Smith**, Adm. Spencer, sketch of Trafalgar, 400
- Smith**, Sydney, on early 19th cent. roads, 4346
- Smith**, Sir Thomas, on Royal prerogative, 3659
- Smith**, Sir W. S., at Acre, 4185
- Smithfield**, London, Wat Tyler's death, 3102, 3102
- Smiths' Union**, anti-strike society, 4674
- Smoke Screen**, destroyers, 4832
- Smoking**, first practice, 3447
- Smolensk**, the citadel, 3956
- Smollett**, Tobias, on gin-drinking, 5045
- influence on German novel, 3950
- Smolay Institute**, revolutionary centre, 4053
- Smugglers**, of gold, Napoleonic wars, 4939
- at Poole, 4213
- Smuts**, Gen. Jan C., and League of Nations, 4929, 4920
- on post-war problems, 413
 - quells rebellion, 4753
- Snail shells**, in gold, Egypt, 360
- Snake**: see **Serpent**
- Sneferu**, king, law under, 544
- progressive policy, 423
 - pyramid of, 505
 - Ra-hotep possibly his son, 477
 - record on Palermo Stone, 24
 - tomb at Medum, 424, 605
 - warned by prophet, 566
- Snobbery**, Thackeray and, 4543
- Snorri**, s. of Thorfinn, in America, 2527
- Snow**, and ice, world's areas, map, 338
- See also **Ice Age**
- Snowdon**, a volcano, 95, 96
- Soaemia**, Roman woman senator, 376
- Soaemias**, mother of Elagabalus, 2111
- Sobieski**, John, 3751, 3752, 3753-54
- Social Contract**, Hobbes on, 3704
- Rousseau, 4066, 4129
- Social Democratic Federation**, 4987
- Social Democratic Workmen's Party**, 4985
- Social Democrats**, and Kerensky's government, 4948
- in Germany, 4986
 - in pre-Revolution Russia, 4940
- Socialism**, 4077-94
- in France, 4440, 4979-81
 - and the French Revolution, 4155
 - Greek idea of State, 1563
 - Marxian, 4986, 5074
 - Roman State, 2136
 - three meanings, 4977
 - and trade unionism, 4071, 4983
- Socialist League**, founded, 4987
- Social Revolutionists**, assassinations by, 4953
- in Russia, 4940
 - trial of leaders, 4973
- Social Science**, Association for the Promotion of, 4409
- Social Service**, British, east, 5081
- Luther's conception, 3355
- Social System**, French Revolution, 4153
- medieval cruelty in, 2778
 - changes, 3102
 - Roman and English, 2163
- Social War** (90-88), 1772
- Society**, basis of, 2162
- economic basis of, 388
 - environment and, 331, 437-9
 - influence of migration upon, 438
 - organization speeded up, 217, 223, 314
 - a pre-human heritage, 187
 - primitive, in Africa, 236
 - food production and institutions, 232-6, 238-240, 437-441
 - unit of, 389
- See also **Civilization**; **Man**; **Primitive Man**
- Socii**, in ancient Rome, 1807-8
- Sociology**, case against free trade, 4485
- as a science, 4532, 5059
- Socman**, in Anglo-Norman law, 2730
- Socotra**, British protectorate, 4628
- Portuguese capture, 3534
- Socrates**, 1454, 1455, 1456
- Alcibiades' life saved by, 1242
 - on athletics, 1326
 - demonion of, 1456
 - at feast, 1283
 - and intellectual revolution, 1454, 1479
 - laws of conduct, 1456, 1479
 - member of stonemason's guild, 1261
 - in Plato's Dialogues, 1353, 1456, 1458
 - position in medieval schools, 3077
 - sciences, attitude towards, 1479
 - on the soul, 1563
- Soda**, French industry, beginnings, 1136
- for gas masks, 4792
- Sodoma**, S. Sebastian by, 3704
- Sofala**, 17th cent. plan, 3402
- Sofy**, Persian, Shah Abbas, 3481
- Sogdiana**, Alexander's farthest conquest, 1585
- medieval importance, 2012
- Solier**, of Courral, execution, 3082
- Soli**, source of Maui's maintenance, 333
- Solar System**, birth of, 68-69, 72
- See also **Astronomy**; **Cosmology**
- Soldiers**, of American colonies, 4930
- Chivalry's idea, 2971
 - Egyptian Empire, 681
 - Middle Kingdom, 561
 - pre-dynastic, 483, 486
 - English, Civil War
 - French, pre-Revolution, 4122
 - Greek, Homeric, 846
 - hoplites, 1099, 1242-43
 - medieval infantry, 2044, 2048, 2054
 - Mogul infantry, 3779
 - Napoleonic, 4292
 - officer of Civil War, 3728
 - Prussian, 18th cent., 3888, 3981
 - Roman, 1718-23, 1726-27, 1806
 - Sumerian infantry, 527
- See also **Army**; **Warfare**
- Solerets**, armour, 2920, 2941-42
- Solerino**, battle of, 4377
- Sollas**, Prof., on primitive implements, 242
- on totems, 210
- Solomon**, king, 677
- Abyssinian rulers descent from, 3104-5
 - harsh régime, 819
 - Hebrew decadence under, 876
 - molten sea for, 819
 - and Phoenicians, 805
 - Queen of Sheba and, 3404-5
 - temple, 530, 378-19, 1949
 - territory, 816
- Solomon**, Cup of: see **Chosroes**, Cup of
- Solomon Islands**, fishing devices of natives, 282
- Solon**, statesman, Athenian democracy founded, 1119
- and class warfare, 389
 - coin, 1114
 - legal reform, 1042
 - reforms, 1044, 1118
 - verse, 1340
- Solovetzky Island**, concentration camps, 4965
- Solutrean Period**, in cave-dwellings, 144, 247
- Egypt's link with, 459
 - flints, 27, 37
 - laurel-leaf implements, 206, 247, 248
 - needles and bodkins, 247
- Solutrean Period**—cont.
- Neolithic comparison, 275
 - regional chronology diagrams, 220, plate f.p. 220
 - tattooing in, 297
- Solway Firth**, Hadrian's Wall from Tynno to, 1722
- Solyman I**: see **Suleiman I**
- Somaliland**, British protectorate, 4028
- the Egyptian Punt, 353, 422, 680, 682
- Somerset**, Celtic place-names, 2451
- Roman lead mines, 2153
- Somerset, E. of**, with Countess of Essex, 3716
- Somerset House**, London, 4238
- Somme**, Battle of the (1916), 4760, 4767-68, 4808
- a battle of attrition, 4808
 - (1918), 4777, 4778
- Somme-Bionne**, La Tène tomb, 1512, 1519
- Somme Valley**, early man in, 146
- Sommières**, Roman bridge at, 2038
- Sompting**, Saxon church, 2403
- Songhay Empire**, 3394-5, 3407
- end of, 3707
- Songhay**, migration from Nile, 3400
- Song of Songs**, literary value, 811
- Son of Heaven**, a Chou emperor, 442
- Soochow**, Marco Polo on, 3506
- Sophia**, in Gnosticism, 2092
- Sophia**, w. of Ivan the Great, 3920
- Sophia of Anhalt-Zerbst**, marries Peter III, 3938
- Sophia of Hanover**, and British succession, 3701
- Sophia Charlotte**, w. of Frederick I of Prussia, 3751
- Sophist**, meaning of word, 1475
- Sophocles**, 1351, 1352, 1353
- Aeschylus compared, 1352
 - on man, 1193
 - and unities of time and place, 4039
- Sophol**, or **Sophistal**, meaning, 1451
- Sophroniscus**, father of Socrates, 1454
- Sophronius**, patriarch, opposition to Monothelites, 2942
- Sorbs**, tribe, 2472-3
- Sorcery**, persecutions and executions, 3453
- prehistoric, Grotte de Lourdes, 793
 - Les Trois Frères, 205, 206, 260, 300, 3292
- Sostratus**, Tartessus discovered, 1641
- Sostratus**, of Cnidus, Pharos of Alexandria built, 1534
- Sotharis**, virgin martyr, 2321
- Sothic Cycle**, in Egyptian calendar, 422
- Soul**, Aristotle on, 1364, 1485
- Eastern conception, 2084
 - Egyptian views, 355, 363
 - journey of, 049
- Empedocles** on, 1453
- Greek conception, 1508
 - material substance, 1452-3
 - Mithraism and, 2090
 - origin of word, 323
 - Orphic and Pythagorean conception, 1453
 - Platonic theory, 1460
 - Plotinus' conception, 2096
- Soul-boxes**, pebbles as, 265
- Soule Sleeper**, sectarian, 3718
- Soul House**, of Old Kingdom, 551
- Soul**, Marshall N., Wellington defeats, 4103
- Sound**, imitation in language, 322
- South Africa**, colonial history, 4614
- colour-bar in, 320, 5083
 - dominion status, 414
 - effect of trade winds, 336
 - first European settlers, 3403
 - self-government granted, 4022
- South African War** (1899), 4570-71, 4621
- Dominion troops in, 4024
 - lessons of, 4799
 - and protectionist revival, 4177
- South America**, 4318-40
- aborigines, 2505
 - archaeology of, 2591-98; see also Bolivia; Inca; Peru
 - early culture, 2591, 2590, 2601
 - fishing population, 2598
 - effect of trade winds, 336

South America—*cont.*

- indigenous fauna, 131
- Latin republics in 19th cent., 4378, 4319-40
- monasteries in, 2286
- mountains formed, 109
- nationalism born, 316
- origin of hybrid peoples, 316
- physical features, 2591, 4320
- pre-Inca art, 2593
- revolutionary governments recognized, 4262, 4324
- Spanish conquests, 316, 410, 3306

See also separate countries and
Cuzco; Inca

Southampton, ancient wool house, 2909

—Water, formation, 28

Southampton, H.M.S., at Jutland, 4850

South Australia, conglomerates of, 84

—founded (1854), 4009

Southey, Robert, on post-Revolution Europe, 4433

—on Spanish national spirit, 412

South Sea Bubble, 4226

South Seas, British possessions in, 4030

Southwark, in Shakespeare's time, 3558

Sovereignty, Bodin's doctrine, 3700

—Jesuit views, 3687

—Roman theories, 1704

See also Autocracy, Imperialism;
King

Soviets All-Russian Congress of, 4052

See also Russia, Bolshevik

Sowing, medieval, 3078

Spa, conference at (1020), 4888

Spade, from digging-stick, 281, 285

—in modern warfare, 4812

Spain, Medieval, Cortes, 3077

—emergence as a power, 400, 413,

map 2318, 2827

—Innsbruck League and, 3057

—music in, 2997

—Vandals invade, 2214

—Visigoths conquer, 2214, 2200,

2207-08

—overthrown, 2354-55, 2409

Spain, Modern, American empire of,

410, 8295, map 3520, 3537, 4005,

4320

—conquest of, 3300, 3530-40

—divided with Portugal, 3532,

8583, 3539

—loss of, 4270

—Bourbons in, 3877

—constitution of (1812), 4200

—Cortes, 3013, 3077

—decline of power, 391

—dictatorship in, 4896

—18th cent., 4070

—and England (16th cent.), 391

—(18th cent.), 3902

—failure as colonists, 310-20

—under Joseph Bonaparte, 4080,

4102

—Leopold offered crown, 4382

—monasteries dissolved, 2286

—Peninsular War, 4105-07

—under Philip II, 3459-80

—romanticism in, 4312

—sea power of, 3528, 3541-2, 3804,

3808

—loss of, 3470, 3542-45

—social conditions in (16th cent.),

4292-93

—socialism in, 4088

—unification, 3144, 3012

See also Philip II

Spain, Moorish, 2642, 3264-62

—Almoravids in, 2047

—Christian kingdoms, 2047, 2050

—commerce, 2898

—conquered Visigoths, 2355-56

—Crusaders in, 2059

—culture in, 2542, 3386, 3413

—emirates in, 2047

—fairs in, 2901

—overthrow of, 2827, 3528

See also Moorish Architecture;
Moor

Spain, Prehistoric, 614-5

—bell-beaker culture, 633

—cave art, 258-9, plates 201-3, 205

—Caspian, plates 201-2, 205-6

—Chalcolithic era, 634

—Egyptian, clay head, 35

Spain, Roman, Augustus in, 1844, 1869

—Carthaginians in, 1633, 1661,

1662, 1064

—surrendered, 1591

—conquest, 1601, 1603, 1609-1700

—figure representing, 1992

—fortress camp, 1730

—government, 1696, 1708, 1710

—Justinian and, 2207

—mines in, 1094, 1997

See also Carthage; Hannibal;
Scipio

Spalato, Diocletian's palace, 2032

Spallanzani, Abbé, bacteriology, 3830

Spanish-American War, 4338, 4570

—salvage of the Malnc, 4576

Spanish Armada: *see* Armada

Spanish Disorder, medieval name of

syphilis, 3115

Spanish Fury, at Antwerp, 3472, 3473

Spanish language, Arable words, 3280,

3294

—origin, 2241

—Roman influence, 1008

Spanish literature, Mahomedan influ-

ence, 3200

Spanish Succession, War of the, 3756

—genealogical table, 3755

Sparta, 1035, 1387, 1400

—Achaean chiefs at, 789

—League and, 1584, 1675, 1678

—army, 1037, 1300

—art of, 099-1000, 1037-38

—and Athens, 1120, 1220-30, 1240,

1302

—Africa devastated, 1240, 1243

—Cretan art survival, 836

—empire, 1387-1400, 1233

—excavations, 990

—girls, 1209

—kingship in, 883

—Uto in, 1039, 1390

—and Macedonia, 1405, 1434

—military power, 1002, 1301

—monarchic powers, 1872

—palace of Menelaus, 835, 839

—and Persia, 1245-46, 1248

—Persian wars, 1100-03, 1247

—site of, 1036

—state individuality, 1255

—and Thebes, 402, 1248, 1899

See also Dorians; Laconia; Pello-
pouneian League; Pelopon-
nesian War

Spartans, leader of slave rising, 1775,

1820

Spartans, character, 1030-37, 1308

—training of, 1300

Speaker, The, chair, 3079

Spear, of Egyptian infantry, 661, 680

—fishing, predynastic Egypt, 485

—Solomon Islands, 232

—head from Ur, 517

—in Heroic Age, 846

—of Minoan huntsman, 786

—and religious symbols, 200

—of Siliadanu, 793

Spear Bearer, or Doryphorus, 1300

Spearmen, Sumerian, 430, 527

Spear-thrower, advantages and dis-

tribution, 278, 270

—modern (Australian), 249, 279

—reindeer, Magdalenian, 243

Specific Gravity, Archimedes' applica-

tion of, 2009

Speakman, Charles, shop-lifter, 4215

Speulation, in the German mark, 4914

—ie, Connt von, at Coronel, 4337,

4388

Speech, and nationality, 306

Speech, freedom of, in France, 4121

—in S. America, 4328

Speed, 5003, 5064

Speier, Diet at, decrees, 3311

Spells, to protect dead, 546

Spelt Wheat, in ancient Egypt, 492, 488

Spence, Thomas, and communism, 4079

Spencer, Herbert, 4622, 4627, 4532

—and evolution theory, 4530

—on progress, 5088

—on sex question, 3083

—and sociology, 4533, 5059

Spener, P. J., portrait, 3940

Spengler, Oswald, on civilization, 5000,

5070

Spenser, Edmund, 3710

—a romantic, 4033

—Shepherdes Calendar, 3487

Spenser, Bishop, English ex-

pedition, 3086

—and Peasants' Revolt, 3102

Sphacteria, Spartan landing and sur-

render, 1242

Sphinx, the Great, 25, 425, 508, 509

—Greek transformation, 1306

—Hittite at Sakje Genzi, 724

—on Minoan ring, 799

—with pyramid of Khufu, 509

Spice Archipelago, acquired by Dutch,

3546

Spindle-whorls, from Crete, 594

—from Troy, 860

Spine, of men and apes, 169

Spinet, mechanism, 2069

Spinning, in Crete, 594

—Egyptian girl, plate f.p. 553

—Middle Kingdom, 552, 555, 560

—18th cent. inventions, 4317

—women of Heroic Age, 844

—Middle Ages, 2925

Spinola, Ambrose, Spanish commander,

3637, 3638

—in the Netherlands, 3580

Spira, Johann and Wendelin da, early

printing inventions, 3180

Spiral, in Minoan design, 599, 604

—in Mycenaean decoration, 787

—in neolithic temple, 610

Spirit, Plotinus' conception of, 2000

—vital natural of Greeks, 2005, 2078-0

See also Soul

Spiritual Courts, satire on, 3669

Spiritual Exercises, of Loyola, 3038

Spiritualism, cult of, 4808

Spitfire, H.M.S., at Jutland, 4852

Spoliatum, military road, 1581

—defeat of French, 2882

—end of feudal nobility, 8428

Spoleto, independent duchy, 2751

Sponge, Camulrian, Period, 94

Sport, in Egypt, 455, 458

—in 18th cent. England, 4295

—medieval, women's outdoor, 3427

—Mycenaean, 784

See also separate sports and Games;
Gymnastics; etc.

Spotswood, Alexander, governor of

Virginia, 4009

S.P.Q.R., meaning of, 1706

Sprague, Sir E., at Aggers, 3806

Spruce, battle of the (Court), 3081

Squire, medieval, duties, 2974

Srirangam, temple to Vishnu, 1202

Sui K'ung T'u, poetry of, 1167

Sui-ma Ch'ien, Chinese historian, 2648

Sui-ma Kuang, Chinese writer, 'Mirror

of History', 2502

Stadium, Roman, 2053

Stadthof, battle of, 3030

Stael, Mme. de, opinion of Stoyès, 4157

—religious views, 4200

Stag, palaeolithic drawing of, 253

Stage, in 18th cent. England, 4212

Stag-hunting, Chosrov I., 2306

Staggia Castle, near Sienna, 3203

Stahl, G. E., and combination problem,

3831

Stained Glass, Gothic, 2872, 2879, 2884

—Renaissance work, 3

Stanhope, 3rd earl, and printing press, 3200
 Stanislaus, Russians take, 4765
 Stanislaus I, king of Poland, driven to Prussia, 3884, 3885
 Staple, English seals, 2911
 —at Calais, 2909, 2910
 —in wool trade, 2899, 2908-09, 3484
 Star, divination in Egypt, 363
 —evolution, life and decay, 61-69, 70-72
 —Greek record of positions, 2064
 —Hipparchus' catalogue, 2080
 —ladder of stellar decay, 62
 —life-histories, 61
 —and the universe, 61-73, 5005
 See also Astronomy; Cosmogony
 Star Chamber, Court of, 3661, 3665-66, 3667
 —in Agas' map, 3560
 Starfish, Cambrian Period, 94
 Starckenberg, R. von, at Vienna, 3758
 Starvation: see Famine
 Stasius, 1340
 State, 3343
 —Aristotle's idea, 1121
 —Burke's conception, 3353
 —and the church, 2459, 3023, 3097
 —the city state, 1607
 —Greek ideas, 1121-24, 1566
 —the ideal, 1593
 —Luther's conception, 3352
 —military foundation, 359
 —the monarch, 1607
 —Renaissance influence, 3343
 —Roman idea, 1706
 —the sovereign, 3343, 3440
 States-General, France, 3600, 3676-77, 3680
 —called in 1614, 3585, 3586
 —1789, 3914, 3916, 4079
 —Lafayette in 4100
 —Robespierre in, 4170
 States-General, Netherlands, 3678
 States of the Church, nucleus, 2487
 States Provincial, 3677
 Statira, w. of Alex. the Great, 1409
 Statius, poet, 1893-94
 —on women gladiators, 2024
 Statue, supernatural idea in, 352
 See also Sculpture
 Stave (in music), 2959-60
 Steam engine, 4703
 —British production, 4288
 —driver, plate *f.p.* 4458
 —Watt's inventions, 4362
 Steam hammer, Nasmyth's, 4360
 Stecknitz Canal, 14th cent., 3051
 Steel Industry, 5066, 5075
 Stegosaurus, dinosaurs, 122, 129
 Stein, Baron von, 4704
 —reforms, 4293
 Stein, Sir Aurel, Chinese MSS. discovered, 2545, 2556-57
 —explorations, 1501, 1502-04
 Stephen, king of England, 2657
 Stephen I (S.) of Hungary, 2510, 3151
 Stephen II, pope, 2416, 2487, 2708
 Stephen IV, pope, 2770
 Stephen Bathori, king of Poland, 3480
 Stephen Dusan, king of Serbia, 2991
 Stephen Nemanya, 2038
 Stephen of Perchi, at Sicilian court, 2699
 Stephens, James, Chartist, 4436
 Stephens, James, fairy tales, 5019
 Stephens, Uriah S., and Knights of Labour, 4516
 Stephenson, George, 4356
 Steppes, 338, 343
 Sterne, Laurence, 4281
 Stonart, Sir James, political economy, 4661
 Stevens, Thaddeus, opposes Andrew Johnson, 4490
 Stewart, royal house: see Stuart
 Stewart, Dugald, 4069
 Stick, Notched, for numbers, 24, 1063
 Stigand, archbp. 2707, 2709
 —on Bayeux Tapestry, 2608
 Stilicho, Flavius, 2300-02
 —statue, 2301
 Stilling, Johann H. Jung, 3965
 Stillingfleet, Benjamin, and the blue-stockings, 4216

Stillingfleet, Edward, attack on Locke, 4050
 Stilo, Asilus, influence on Latin, 1831
 Stirrup, 2608
 Stockach, Austrian victory, 4091
 Stockholm, blood-bath, 3312
 Stockings, knitted, 36
 Stockton and Darlington Rly., first engine, 4356
 Stoddard, Lowthrop, 5072, 5078
 Stoessel, General, at Port Arthur, 4568
 Stogursey: see Stoke Newrey
 Stoicism, 1461-65, 1901-03
 —astrology and, 2082
 —Christianity's opposition, 2082
 —conception of duty, 1763
 —Marcus Aurelius and, 2082
 —philosophy of, 1464
 —and Puritanism, 3504
 —Roman, 1763, 1903-04
 —Seneca's exposition, 1896
 Stoke, battle of landsknechte nt, 2952
 Stoke Courcy, field division, 2664
 Stoke d'Abernon, brasses, 2928, 2929
 Stoke Poges, and Gray's Elegy, 4308
 Stokesay, castle, 3429
 Stoin, C. Lelians, 1652
 Stolypin, P. A., 4943
 Stone, earliest use, 218
 —in Egypt, 491, 504
 —in Mesopotamia, 510
 —quarries at Memphis, 500
 Stone Age, Old and New: see Neolithic Period; Palaeolithic Age
 Stonehenge, 625-28, 626-27, 629
 Stone Implements: see Flint
 Stonemasons, 352
 —in Athens, 1361
 —Gothic, 2384
 Storm and Stress, German movement, 3950
 Stoughton Hall, Cambridge, Mass., 4016
 Stourbridge, cloth trade, 2901
 Stow, John, on Puritans, 3707
 Strabo, Greek geographer, 1509-11, 2074-75
 —on Thracio-Phrygian immigration, 861, 866
 Strabo, Pompeius, 1772-73
 Strachey, Lytton, writings, 5021
 Strachey, W., settler in Virginia, 3547
 Stratford, Earl of, 3072, 3721
 —trial, 3673
 Stralsund, evacuated by Charles XII, 3386
 —in Thirty Years' War, 3641
 —Wallenstein's failure at, 3593
 Strand, The, London, in 18th century, Eagle Inn, 4240
 Strassburg, 4385-86
 Strassburg, Oath of (843), 2423
 Strassburger Zeitung, 3620, 3624
 Stratford, origin of name, 1883
 Stratocles, banking arrangements, 1553
 Strauss, Richard, 4317
 Stravinsky, return to classicism, 4317
 Street-planning: see Town-planning
 Streltsi, suppressed by Peter the Great, 3761
 Stresemann, Gustav, at Geneva, 4925
 —signs Peace Pact, 4904
 Strife, Empedocles, theory, 1453
 Strigili, 1315, 1317
 Strike, in Australia, 4989
 —dockers (1889), 4979, 4980
 —in Middle Ages, 2023
 —picketing in, 4677-78
 —railroad in U.S.A. (1877), 4516
 —reaction against, 4674
 —on Taff Vale Rly. (1900), 4680
 Strike, General, 4671
 —in Germany, 4911
 —in Great Britain, 5075, 5081
 —in Petragrad (1917), 4947
 Strings, knotted: see Quipu
 Stroganov (family), charters granted to, 3918, 3924
 Stroglaw, Russian church law, 3925
 Strolling Players, 2964
 Strutt, Jedediah, 4348
 Stuart (royal house), 391, 2015, 2658
 See also Charles I; James I
 Stuart, Gabriel, George Washington, 4711
 Stuart, Gilbert, American artist, 4019

Stubbes, Philip, on effeminacy, 3566
 —on Elizabethan drama, 3558
 —on the London poor, 3577
 Stubbs, George, agricultural labourers, 4219
 —harvest scene, plate *f.p.* 4218
 Stubbs, John, patriotism, 3555
 Stubbs, William, bishop, 4550
 Stueley, rebellion against Elizabeth, 3555
 Students, German, 4291
 Studius, or Ludius, painter, 1934
 Sturdee, Sir F. C. D., at Falkland Isles, 4838
 Surgeon, 114
 Sturm and Drang, 3959
 Style, in archaeology, 32, 33
 Stylus, for cuneiform writing, 518
 Suarez, Francisco, on Divine Right, 3702
 Sumbuluma, Hittite king, 593, 729, 1013
 —empire established, plate *f.p.* 402
 —Hittite power under, 799
 —ware of, 733, 800
 Subiaco, printing at, 3139
 —lakes at Nero's villa, 2041
 Submarine, early perils, 4833
 —German, Deutschland type, 4859
 —in Mediterranean, 4858
 —in Great War, 4853, 4854, 4790
 —life in, 4857
 —in Scapa Flow, 4842
 —shelling merchantman, 4854
 —total force, 4855
 —U-19, 4833, 4834
 —Washington Conference and, 4889
 Substitute, in France, 4121
 —war time inventions, 4780
 Succession, Hindin law, 4401
 —Pictish law, 1624
 —Sucker-fish, for hunting turtle, 284
 Suckling, Sir John, 3712, 3713
 Sudan, 3994-96, 3406-09
 —Berbers by, 3993
 —gold in, 359
 —reconquest of, 4571, 4924
 Sudanes, cranial type, 227, 229
 Sudbury, borough for sale, 4430
 Sudbury, Archbishop, in Peasants' Revolt, 3101
 Sudebnik, Russian legal code, 3925
 Sudras, caste in India, 237, 453, 1203
 —mythological origin, 2394
 —potter member, 2394
 —subdivisions, 2394
 Sues, Eduard, on marine transgressions, 94
 Suetonius, historian, 1897
 Sutorius, Paulinus, in Wales, 1857
 Suevi, tribe, 2201, 2203
 —in addressing, 2217
 Suez Canal, Australians guarding, 4753
 —ancient Egyptian waterway, 1089
 —British interest in, 4628, 4636
 —construction, 4567
 Suffete, in Carthage, 1628, 1634
 Suffolk, coast erosion, 23
 Suffolk, Duchess of, ally of, 2970
 Suffrage, in colonial America, 4008
 Sugar, in West Indies, 3550
 Sugar Act, effect on American colonies, 4027
 Sugar Beet, French industry, 4139
 —in Prussia, 5071
 Suibne, Abbot, 2684
 Suicide, in 18th century England, 4223
 —Epictetus condemns, 1907
 Sukbu, lord of the Aiamacans, 880
 Sulayman, son of Chagri Beg, 2781, 2786
 Sulayman, son of Kutulmish, ancestry, 2794
 —Nicaea captured, 2015
 —Roum kingdom founded, 2045, 2050, 2787, 2794
 Sulciman I (the Magnificent), sultan, 409, 410, 3913
 Suleiman, Khalif, son of Walid, 2356-57
 Suleiman, Turkish leader, 2833
 Sulla, L. Cornelius, 1772-74, 1863
 —dictatorship, 1773
 —as military leader, 1770
 —portrait, 1770
 —worship offered to, 1877

- Sully, duc de**, 3582, 3583, 3585
 —Grand Design, 3701
Sulpicius, tribune, 1772
Sultan, fourfold authority, 410
Sultan Muhammad, court painter to Shah Tahmasp, 3767
Sultan Suah, 3775
Suabach, in Babylonia, 582
Snamarkov, Russian dramatist, 3936
Snamara, Kadish in, 4627
Sumer, region of Babylonia, 430, 459
 —map, 423, 512
Sumer and Akkad, kingdoms, 521, 676
Sumeria, 510–42, plate *f.p.* 528
 —agriculture in, 456, 513
 —architecture, 510, 519, plate *f.p.* 528, 531
 —art in, 516–17, 522–23, 527, plate *f.p.* 529, 536–42
 —astronomy in, 976
 —civilization of, 512–42, 1127
 —deities, 358, 536–40
 —dress in, 514, 540–41
 —duodecimal system used, 329
 —language, 322, 972, 1008
 —Mesopotamia colonised, 511–13
 —orientalism in, 1199, 1201
 —spearmen, 430, 527
 —women in, 372, 540–42
 See also Agade; Babylon; Indo-Sumerian; Kish; Lagash; Tell el-Obeld; Ur
Sumerian Law, tablets, importance in, 531
 'Sumer is iouman in', 2965, 2966
Sumerio-Babylonian Writing: see Cuneiform
Summer, W. G., sociologist, 5050
Sumner, Charles, and Civil Service reform, 4510
 —opposes Andrew Johnson, 4490
Sumptuary laws, in Rome, 1050
 —14th cent., 3430
Sumu-abum, Babylonian dynasty, 432
Sumu-ilu, king of Larsa, 432
Sun, 1556, 2003, 2004
 —age of, 56, 63
 —eclipse of, 1140, 1408
 —Egyptian Idens, 643
 —Hipparchus' theory of motion, 2081
 —king as, 647
 —and megalithic buildings, 621, 624
 —with planets, 76, 1555
 —source of energy, 61
 See also Star; Sun Worship
Sunday Observance, Anglo-Saxon, 2402, 2407
Sunday School, 4402
Sundial, 298
 —in Greece, 1409
Sun disk, in stele from Akhetnton, 709
Sun god, in chariot, from Troy, 871
 —in Greek religion, 1371
 —in Maya civilization, 2579
Sung Dynasty (Lin, A.D. 420–479), 2209, 2274
Sung Dynasty (N. and S., 960–1127), nrt under, 2543, 2560–64
 —Confucian revival under, 2500
 —literature under, 2561
Sunni Ali, ruler of Songhay, 3407
Sunlight, and tuberculosis, 5056, 5057
Sutaki, seat, 2351
Sun-worship, Babylonian, 640
 —Aztec, 3360
 —Bronze Age, 918, 920
 —Egyptian, 638, 730
 —Greek, 371, 1371
 —Inca, 3384, 3387
 —Maya, 2579, 2589
 —by Minoans, 787
 —at Stonehenge, 626, 628
Sun Wu, Chinese writer, 2101
San Yat-sen, 4065, 4902
Superintendent of the Granaries, Egyptian title, 498
Superior Lake, 2571
Supernatural, idea of, 349–64
Superstition, Babylonian, 349
 —concerning flint arrows, 352
 —in Middle Ages, 3453
 —peasants, 350
 —in Rome, 1901–02
 —at time of Thirty Years' War, 3821
 See also Magic; Witchcraft
Supper, in 18th century England, 4243
Suppliant Woman, Tho, by Aeschylus, 1319
Supplies, voted by Parliament, 3663
Supremacy, Act of (1534), 398, 3667, 3681
Supreme Being, feast of, 4134, 4135
 —Rocapierre and festival of, 4177
Supreme Court, in U.S.A., 4518
Surajah Dowlah, at Plassey, 3901
Sural, Akbar entering, 3764
 —depot of B. India Co., 3603
Surcoat, 2929, 2980
 —Black Prince's, 2932, 2933
 —on knight's effigy, 2932, 2933
Surgery, Egyptian, 702
 —Greek, 848, 1370
 —apophanes used, 1177–78
 —in Heroic Age, 848
 —among primitive peoples, 208
 —in the Renaissance, 3339–39
 See also Anatomy
Surgery, 848, 1370
Surridge, F., on the Mashonq, 3403
Surveying, Hero of Alexandria's work, 2070
 —Roman, 2241, 2245
Surya, compared with Shuwar, 803
Susa, 521, 1146
 —Alexander captures, 1407
 —antiquity of, 450
 —Darius' palace, 1145–46, 1146–48
 —enamelled friezes from, plate *f.p.* 1140, 1145
 —Hammurabi's code at, 575
 —historical strata, 27, 219, 456
 —obelisk of Manishtusa, 1067
 —Palestine under, 809
 —pottery from, 457, 458
 —Trajan at, 1908
Sussex, iron industry in, 4312
 —in primeval times, nup, 315
Suta, entered by Subbuhulluma, 732
Sutra, Diamond, Chinese printing, 2556, 2557
Suttee, abolished by Akbar, 3770
 —memorial stone, 4455
 —suppression, 4455
Sutton (Surrey), in 18th century, 4261
Sutu, Armanian bandits, 800
Sun Tung-p'o, Chinese poet, 2502
Suture, of skulls, 227
Suvarov, Alexi, victory on the Trebbia, 4094
Suyla Bay, landing at, 4756
Sverdlov, Bolshevik leader, destroys Constituent Assembly, 4955
Sviatoslav, Russian hero, 2510, 2512
Swabians, ns landsknechte, 2952
Swallow Song of Rhodes, Greek poem, 1341
Swan, duccancer, 3810
Swan, Sir Joseph, electric lamps, 4707
Swan Theatre, plan, 3559
Swastikas, on Dilyon Vase, 998
Swazi, woman, cranial type, 229
Swaziland, government of, 4623
Sweden, Bronze Age carvings, 635, 917
 —under Charles XI, 3750
 —French alliance (17th cent.), 8742
 —Hanseatic League in, 3055
 —Holy Roman Empire joined, 3633
 —independence gained, 3134, 3312
 —Norway colonised from, 2524
 —separated from, 4564
 —religion, 3313
 —settlement in Delaware, 4006
 —socialism in, 4088, 4092
Swedenborg, Emmanuel, 4076
Sweet Potato, and American contact with Polynesia, 2601
Sweya, King, Danish king, 2507, 2526
Sweynheim, C., printer at Sublino, 3188, 3180
Swilly, Lough, Grand Fleet in, 4841
Swinburne, A. C., 4549
Swinton, Sir Ernest, inventor of tank, 4816
Swiss Confederation, 3009, 3688–90, 3633
Switzer, rural gardening, 4301
Switzerland, agrarianism in, 5072
 —army, medieval, 2948–49, 2951
 —halberd and pike, 2949
 —Battle of Sempach, 3090, 3091
Switzerland—cont.
 —frontier at Hohentwyl, 307
 —independence of, 3086–90, 3598, 3633
 —lake-villages: see Lake dwellings
 —nationalism achieved, 3616
 —religion in, 3312
 —Roman conquest, 1871
 —socialism in, 4988
Sword, Bronze Age, 911, 918
 —Germanic, 2215, 2219
 —in Homeric Age, 516
 —Iron Age, 922–3, 938
 —of Japanese Samurai, 4415
 —La Tene (Celtic), 1516, 1518
 —medieval, 2939
 —Minoan, 788, 794
 —Moors, 3282
 —Bonaldi's sword, 3287
 —Mycenaean, 750, 911
 —Norman, 2607
 —Roman, 1724
Sword Brethren, Order of, 3052
Syagrius, Gaulish ruler, 2258–59
Sybotia, naval fight, 1239
Sydenham, Thomas, theory of epidemic disease, 3114
Sydney, N.S.W., in 1803, 4610–11
Sydney, Viscount, Sydney, N.S.W., named after, 4610
Syene: see Aswan
Syenite, bowl of, 462
Syer, Sir William, recorder of Bombay, 4452
Syllabary, 1064
Syloson, tyrant of Samos, 1002
Sylvester I, pope, 2481
Sylvester II, pope, 2503
 —learning, 2541, 2770
 —relations with Hungary, 3151
Sylvester III, pope, 2773
Sylvester the Priest, Book of Household Economy, 3926
Sylvius, Aeneas: see Pius II
Symbiolism, Christian, 2189
 —in Greece and the Orient, 1200
 —of E. A. Poe, 4314
 —in modern science, 5011
 —in primitive religion, 290
Symington, William, steamship, 4353
Symmachus, pope, 2480
Symmachus, orator, 2221, 2323
Symposium, of Plato, 1358
Synagogue, 1918, 1949
 —at Capernaum and Kofr Birin, 1950
Syneides, bishop of Ptolemais, 2178
Syntokis, in early Church, 2178
Syphax, Numidian chief, Roman capture, 1501
Syphila, 183, 3115, 5037
Syracus, Archimedes in, 2006–07
 —Athenian fleet annihilated, 1241–45
 —Carthaginians in, 1500
 —coins, 1288
 —Dionysius I, empire of, 1210, 1251, 1415
 —foundation of, 1035
 —Gameloi or landed aristocracy, 1015
 —Gelon, tyrant of, 1094, 1104
 —Greek theatre, 1665
 —under Hiero I, 1105
 —under Hiero II, 1575–77, 1500
 —a promontory town, 1053
 —Roman capture (212 B.C.), 1500, 2066
 See also Sicily
Syrie, Ancient, Alex. the Great in, 1430
 —Amarna age, Hittite power, 732
 —and Assyria, 738, 876, 887
 —domestic fowl from, 486, 683
 —Egyptian conquest, 657, 680–1, 1169
 —copper from, 553
 —portrait head, 45
 —rule in, 980
 —slave in, 547
 —timber trade, 501
 —Greek influence, 1534
 —Hecrow ascendancy, 076–7
 —and Hittites, 728, 731–8
 —sculptures in, 734
 —Megiddo victory of Thothmes III, 660, 661
 —Mycenaean intercourse with, 787
 —Peoples of the Sea in, 795
 —under Persian rule, 1140
 —Phoenician cities in, 670, 1169

Syria, Ancient—*cont.*

- prehistoric dolmens, 621,
- lake villages in, 631
- pottery, 456, 501
- Rameses II capturing city, 672
- rebellion against Amenhotep II, 663
- as Roman province, 1777, 1844, 1871, 1976, 1986
- Sabbathianism conquers, 732, 733
- Syria, Medieval, in crusading era, 2798, 2805-07
- Jewish conflicts, 1951
- in Latin kingdom, 2800, 2807
- Mongol invasion, 2820
- religious influence, 2089
- Saracen conquest, 2315
- Turkish rule in, map, 109, 410
- Syria, Modern, French mandate, 4878
- Mehemet Ali surrenders, 4273
- Napoleon's campaign in, 1185
- Szara, Mt., from Mycenae, 774
- Sze-chuen, 445
- Szigetvar, Turkish capture, 3162

T

- Taanach, altar from, 824
- Tabernacle, sacred tent for Ark, 821
- Tahoo, in Assyria, 970
- women and, 369
- Taborites, Hissite sect, 3137
- Tabriz, captured by Russians, 4753
- Tabularium, record office, in Rome, 2016, 2032
- Taces, hip armour, 2933, 2938
- Tacitus, Cornelius, 1807
- on Augustus, 1983
- on the Celts, 1609
- on Christians, 2178, 2181
- on the Crucifixion, 1892
- on Germans, 2214-18, 2211, 2451
- on Roman amusements, 2015
- on woman's status, 370
- Tacitus, M. Claudius, emperor, 2120
- Tacties, of Alexander, 1423, 1429-41
- in Great War, 4797-4828
- of Hinnubal, 1650-65
- medieval, 2044-66
- Roman, 1720-28, 1731-32
- Sumerian, 527
- in Thirty Years' War, 3037-55
- Tadu-Khina, Mitannian name, 803
- Taff Vale Rly., strike, 393, 4080
- See Osborne Judgement
- Tafakkht, k. of Sals, 889
- Taft, W. H., president U.S.A., 4715, 4716
- Taginae, battle of, 2207
- Tagliacozzo, battle of, 2825
- Tagus, dolmens near, 621
- Roman bridge, 2030, 2048
- Taharka, king of Egypt, 889
- funerary figure, 1009
- intrigues with Necho, 890
- Tahir, prince of Seistan, 2788
- Tahpanhes, Greek settlement, 1023
- Tai Chin, Chinese artist, 3520
- Tait, Mahomet at, 2370
- Tail, in humans and other primates, 181
- worn by prehistoric warriors, 456
- Taille, land tax, 3850
- Tallifer, Norman minstrel, 2704
- Tailors, medieval working, 2924
- strike of, 4663
- Taipei Rebellion, in China, 4394, 4655
- over-population motive, 4647
- Tai Tung, Chinese emp., 2545, 4648, 4649
- Taj Mahal, from the Jasmine Tower, 3775, 3788
- Tavernier's description, 3777
- Taj ud-Din Harab, minaret, 2793
- Takabira, and Treaty of Portsmouth, 1570
- Tak-i-Bustan, Arch at, 2314
- bas-reliefs at, 2306, 2314, 2317
- Talaat Pasha, at Brest-Litovsk, 4956
- Talana Hill, battle, 4572
- Talavera, battle of, 4103
- Talayotes, in Balearic Isles, 614
- Minorean monument, 613
- Talbot, Sir G., Garter stall-plate, 2977
- Taliba, a Medina Companion, 2349-50
- Tallage, 2072

- Tallard, Marghat, at Blenheim, 3758
- Talleyrand, G. M. de, diplomacy, 4007
- Tallies, English use, 207, 1063
- Tallow, Argentine industry, 4327
- Talma (actor), mourning for, 4291
- Talou Hill, abandoned, 4763
- Tamerlane, or Timur, 2095, 3221-23, 3174
- dread tradition, 3765
- empire, map, 3122
- Golden Horde smashed, 2850
- India ravaged, 3175
- warrior of, 3175
- Zahidan sacked, 2783
- Tammuz, influence on Rocks, 643
- Ishtar wife of, 584
- Tanagra, battle, 1235
- figures from, 1286
- Tancred, king of Sicily, 2705
- policy, 2743, 2745
- Tancred, of Antioch, 2796
- Tancred, of Hanterville, 2611, 2615
- Tanganyika, British mandate, 4041
- T'ang Dynasty, 2274, 2543-46
- art, 2543, f.p. 2552-53, 2553-59
- literature, 2552-56
- painting, 2538, plate f.p. 2553, 2554
- pottery, plate f.p. 2552, 2554, 2558-59
- Tanis, granite colossi, 705
- Tanit-Asarte, Carthaginian goddess, 1619, 1623, 1626
- Tanit-Pene-Baal, Carthaginian goddess, 1620, 1622, 1624
- Tauk (weapon of war), 4709, 4810, 4818-21, 4826, 4829-30
- British, in Cologne, 4879
- German, 4821
- measures against, 4820
- Merk I and IV, 4820
- Mark V, 4830
- mullion, 4826
- whipnets, 4830
- Ziska's idea of, 2950
- Tanneberg, battle of (1410), 2079
- Tanneberg, battle of (1914), 4749, 4708
- Tanner, in Babylon, 582
- Tantalus, Pelops a son of, 790
- tomb, 991
- Taoism, 1219, 2103-04, 2548
- and Buddhism, 1107, 1222, 2548
- dual systems, 2554
- feng-shui (wind and water), belief in, 2555
- revels, Ming painting, 3522
- superstitions in, 2104
- under Tang dynasty, 2554
- Tao-Teh-King, Book of Lao-tze, 1219
- T'ao T'ieh, Chinese ogre, 417
- T'ao Yuan-ming, or T'ao Ch'ien, 2549
- Tapestry, Trojan War in, 873, 873
- Tapioca, 2598
- Tapir, 140, 247
- Tapiro, Papuan pygmy, 197
- Taplow, burial mound, drinking vessels and jewelry from, plate f.p. 2454, 2458
- Tarain, battles of, 2750
- Tarantella, dance mania in Italy, 3111
- Tardoisian Culture, 220, 265
- flint implements, 225, 265, 266
- Tarentum, coins, 1573
- foreign relations, 1416
- Hannibal in, 1590
- lake-dwellers at, 1163
- Roman wars, 1571, 1607-08
- Targe, of Achaean warrior, 801
- Targeer, of Civil War period, 3728
- Tarisa, defence, 2981
- Tarif Reform (in Britain), 4477
- Baldwin's pledge (1923), 394
- Germany's views, 4573
- U.S.A., Wilson on, 4721, 4725
- Tariffs, in U.S.A., 4499
- Tarik, Saracen leader, 2356, 3206
- Tarim Basin, geographical position, 441
- Tarkhan, Egyptian grave, 490
- Tarsois, 801
- Tarquini, Roman family, 1596, 1599
- expulsion of, 1094
- Tarquinius Priscus, figure on tomb, 1095
- Tarquinius Superbus, 1752
- Tarraco, Romans in, 1591
- Tarragona, Roman aqueduct, 2044

- Tarriktimme, king of Carchemish, 593
- Tarsoid mammal, man's remotest ancestor, 41, 132, 163, 164, 165
- Tartian, Assyrian commander, 385
- Tartar: see Tatar
- Tartessus, 1180
- discovery, 1541
- early settlement, 1058
- Tasmania, British occupation, 791
- proclamation to aborigines, 4609
- Tasmanians, method of fishing, 283
- primitive implements, 242, 244
- type of man, 197, 198
- skull, 209
- Stone Age culture in 18th century, 311
- wind screen, 287, 288
- Tasso Torquato, Jerusalem Delivered, 4031, 4035
- Taste, history of, 4290
- Tatar dynasty, of China: see Manchus
- Tatars, Asian conquest, 2014
- Chinese wars against, 443
- composition of tribes, 2509
- invasion of China, 4th cent., 2543
- medieval horsemanship, 2851
- in old Russia, 3917
- style of armour, 3919
- trade under, 2915
- See also Mongols
- Tatistchev, Basil, critical history of Russia, 3930
- Ta Ts'ia, or Ta Ch'in, position of, 2107
- Chinese expedition to, A.D. 97, 1991
- Tatlopin, in Lower Mesopotamia, 526
- prehistoric origin, 297
- religious aspect, 297
- Taungs Ape, skull, comparisons, 177, 178, 179
- Taurololium, 2086
- Taurt, Egyptian goddess, 699, 701
- in Akhetaton, 752
- on Minors seal, 599
- Taurus Mts., Babylon, silver and lead from, 569
- Sumerian control of mines, 521
- valley of Pyramus, 716
- Tavernier, J. B., Shah Jehan's jeweller, 3790
- on Taj Mahal, 3777
- Tavernier, Jean le, history of Charlemagne, 4993
- Tawney, R. H., on medieval commerce, 2013
- Taxation, English, after Waterloo, 4284, 4285
- French revolutionary, 4137
- 17th century, 3850
- peasantry, entire, 4128
- king's power of, 3800
- under Roman Empire, 2136
- Taxila, Alex. the Gr. at, 1445, 1500
- Graeco-Buddhist buildings and culture, 1445, 1490, 1500-01
- Taxiles, Indian prince, alliance with Alex., 1444
- Taximeter, Roman anticipation, 2246
- Tohernov, Victor, in Russian Constituent Assembly, 4965
- Tea, early Chinese use, 2102
- in 13th century Germany, 3045
- grown in Sze-chuen, 445
- introduced into Europe, 3442
- Teach, Edward, pirate, 3817
- Teachers of the Church, title of, 2327
- Te Aro Flak, Wellington, in 1843, 4613
- Teans, emigration from Teos, 1091
- Tectiform Drawings, 205, 261
- Tedeschen, Gaulish tribe, 1526
- Tedesco, G., Fondaco dei Tedeschi, built, 3043
- Teeth, as charms, 250
- of Pithecanthropus, 157, 168
- Roman stopping, 1650
- Tefnut, Egyptian goddess, 744
- Tegen, vassal to Sparta, 1092
- Teggart, F. J., on transmigrations, 449
- Teignmouth, Lord: see Shore, Sir John
- Telemach, Ganis defeated at, 1608
- Telegraph, the first, 1698
- introduced into India, 4492
- in S. America, 4331
- of Whetstone and Cook, 4693
- See also Wireless Communications
- Telemachus, S., and gladiatorial shows, 1300

- Telemachus**, *s.*, of Odysseus, assembly summoned at Ithaca, 839
 —Athena protects, 850
 —Helen at welcome to, 848
 —room opening into courtyard, 841
Teleology, doctrine of, 1523
 —Galen and, 2079
Telephones, in U.S.A., 4736
See also Wireless Communications
Telescope, Galileo's, 51, 5822
 —at Mount Wilson, Cal., 53, 59
Telesio, Bernardino, Church's attitude to, 49
Telford, Thos., road-making, 4345
Telibinus, dominion claimed over Damaskhnas, 730
Tell el-Amarna, Akhnaton frescoes and sculptures from, 741-51
 —city of Akhnaton, 683, 742
 —glass made at, 703
 —houses compared with Illahun, 550
 —Mitanni in correspondence, 593
 —ring and scarabs from, 700
 —rock tombs, 748
 —stele of chariot, 682
 —tomb of Huy, fresco, 681
Tell el-Amarna Letters, found at Akhetaton, 680
 —attacks by Khabin, 814
 —on colonisation of Palestine, 808
 —reign of Amenhotep III, 665
 —Shirhanu mentioned in, 793
 —on Sutu and Khabin, 800
Tell el-Hezy, formerly Lachish, 831
Tell el-Obeid, architecture, 520, 521, plate *f.p.* 528
 —carved frieze from temple, 522, 528
 —copper found at, 534
 —relief from, 512
 —excavation of Sumerian settlements, 513
 —lion's head of copper from, 520
 —mosaic pillar from, 521
 —painted pottery from, 513
 —statue of Kur-ili, 530
 —temple of A-anni-padda, 514, 518, 520, plate *f.p.* 528
 —wood and copper hull from, 523
Teli Wabsuk, possibly Wasukkanni, 732
Tell, William, story, 2830, 3088
Temonos, sacred area, Ur, 527, 532
Temenue, g-grandson of Hercules, settles in Argos, 983
Temesvar, Eugène of Savoy captures, 3880
Temperature, man indifferent to, 333, 334
 —map of world, 332
Templars: *see* Knights Templars
Temple, The, importance to Jews, 817
 —Ezekiel's, 818
 —Herod's, 1955-56
 —Jachin and Boaz, 819
 —the molten sea, 819
 —ptg. of building, by Fouquet, 3436
 —Roman destruction, 1967, 1958
 —Solomon's, 818-19, 1949
Temple, Sir Richard, on ritual tug-of-war, Burma, 353
Temple, Sir William, on Louie XIV, 3873
Temples, Egyptian, wealth, 549
 —Greek, as banks, 1551
 —construction of, 2031
 —origin and development, 1306
 —of pyramid, 507, 508
 —Roman, construction of, 2031
See also Greek Architecture; Hindu Architecture; Roman Architecture; Rome, the City, etc.
Temujin: *see* Genghis Khan
Tememnt Buildings, Roman, 2007, 2009, 2010
Ten Houre's Bill (1817), 4301, 4434
Teniers, David, Walpurgis Night, 3261
Tenji-Tenno, emperor of Japan, reforms, 2391
Tennessee, coal and iron in, 4497
Tenniel, Sir John, Dropping the Pilot, 4562
Tonius, supernatural ideas in origin, 354
Tennis Court, Hall of, Mirbeau at, 4108
 —oath of, 4153, 4159
Tennyson, Alfred Lord, 4539
Tenoctitlan, Aztec settlement on, 3302
Ten Tables, Laws of, 1648, 1650
Ten Thousand, Retreat of the, 1246, 1493
See also Anabasis
Tenure, of land, under Charlemagne, 2435
 —Tudor period, 3487
See also Feudalism
Teotihuacan, pyramids, 2590, 2594
Tepaneca, Aztec dealings with, 3363
Terah, father of Abraham, 812
Teraphim, household gods, 640
Terburg, Gerard. Peace of Westphalia, 3632
Terence, Roman poet, 1760, 1886
 —influence, 2247
Terentia, w. of Cicero, 1827
Terentius, of Himeria, 1104
Terina (*Bruttium*), coin, 1288
Terminus, liberties granted, 1808
Terminie, god, 1742, 1747
Terrace-history, in rivers, 140, 147, 148
Terramara, pile dwelling culture, extent, 900, chart, 907
 —Italian settlements, 613, 911, 915
Terre, *Napoléon*, French name for Australia, 4605
Territorial Army, 4745
Tertiary Division, diagram and explanation, 160, 161
 —evolutionary significance, 131-2
Tertilian, Church Father, Apologeticum, 1898
 —belief in hell, 3014
 —birth and character, 2310
 —on Christianity, 2179, 2181, 2185
 —dislike of women, 2178
 —writing, 2310, 2483
Teruel, Mudjhar work, 3274
Teshub, Hittite warrior god, 722, 723
 —marriage, 723
 —resemblances, 738
 —stele at Babylon, 727
 —worshipped by Hattusil, 728
Testing plane, re-invention of, 36
Tetrabelodon, Miocene elephant, 137
Tetradrachm, Attic, 1261, 1263, 1550
 —specimens from other states, 1261
Tetrastylon, in architecture, 2058
Tetricus, rule in Gaul, 2120
Tetzeli, sale of indulgences, 3340
Teucler, famous archer, 846
Teutones, tribe, 1770, 2212
Teutonic Knights, Order, 2970, 3059
 —Christianising of Europe, 3098
 —collapse of, 2070, 3061, 3142
 —costume, 2810
 —founding, 2070
 —papal exemptions, 3005
 —Prussian order, 3587
Teutons, 2211
 —map, 2256
 —migrations, 440
See also Germanic Peoples; Germany
Tewfik, khedive of Egypt, 4558
Texas, absorbed by U.S.A., 395, 4278
 —cattle-ranching in, 4501
 —petroleum in, 4497
Texcoco, Lake, Aztec city on, map, 3362
Teyjat, drawing of bear, 258
 —Magdalenian art at, 257
Tezcatlipoca, Aztec god, feast, 3368
 —skull, 3367
Thackeray, W. M., on George I, 4221
 —novels, 4542
 —portrait, 4542
 —Roundabout Papers, 4551
 —serial writer, 4546
Thales, of Miletus, 1047, 1408
 —on construction of world, 1452
 —on Greek mythology, 47
Thame, church brass, 2933-34
Thames, highway in 18th cent., 4253
 —prehistoric terraces of the, 145
Thames Estuary, formation, 28
Thames Valley, 110
Thamugadi: *see* Thugad
Thanes' Guild, 2455
Thankmar, s. of Otto I, 2500
Thapsus, Caesar's victory at, 1787
Tharros, Phoenician city, 1180
Thasos, and Delian Confederation, 1303
Thatcham, destruction of trade, 2725
Theatre, in Colonial America, 4018
 —in Crete, 609
 —Elizabethan, 3558, 3559
 —Greek, 1337-62
 —modern, 3446
 —Roman, 1387, 2025-G, 2052, 2056
 —Troy, 867, 869
Thebaid Monks, savagery of, 2338, 2340
Thebes, Egypt, art: *see* under Egyptian Art—Empire, Middle Kingdom and Saite
 —ascendancy, 427, 543: *see* further under Egypt—Empire and Middle Kingdom
 —Assyrians destroy, 1019, 1021
 —11th Dynasty at, 427, 543
 —funeral festivities at, 557
 —gaming board from, 562
 —fasting subject to, 590
 —plan, 712
 —priests of, 1007
 —princes' college, 603
 —pyramids at, 508
 —the Ramesseum, 696, 705
 —under 17th Dynasty, 435
 —stele from temple, 315
 —tablets, 710
 —12th (Theban) Dynasty. *see* Egypt, Middle Kingdom
 —23rd Dynasty at, 882
 —workmen's village at, 688
See also Karnak; Luxor, etc.
Thebes, Greece, Alex. destroys, 1400
 —Philip of Macedon and, 1405
 —Phoebus and, 1399, 1403
 —silk industry, 2629
 —soldiers at Thermopylae, 1101-2
 —and Sparta, 402, 1248-49
Thebaw, king of Burma, 4471
Theft, in England, 1465, 3489
Thegn, 2710, 2720, 2728
Themistocles, building work at Athens, 1236, 1250, 1269
 —exile and ostracism, 1238, 1235
 —naval policy, 1099, 1231, 1259
 —in Persian War, 1102
 —at Salamis, 1183
 —statue, 1235
Theocrasia, 2034
Theoortius, Greek poet, 1361, 2168
Theodahad, king of Ostrogoths, 29, 2265
Theodelinda, Lombard queen, 2270, 2326
Theodomin, Visigoth, duke, 3267
Theodora, Byzantine empress, 2305, 2312, 2514
 —dedictory offering, plate *f.p.* 2303
 —and Nika revolt, 2298, 2305
 —portrait in mosaic, 2261
Theodora, wife of emperor Theophilus, regency for son, 2425
 —selection as bride, 2023
Theodora, wife of Theophilactus, in Rome, 2770
Theodore, S., 3030
 —Byzantine carving, 2620
Theodora, tsar of Russia, 3926
Theodora, of Mopsuestia, 2333, 2336-37
Theodore, of the Studion, conduct of monastery, 2628
 —and Greek manuscripts, 2640
 —and image worship, 2625
Theodore, of Tarsus, Archbishop of Canterbury, 2300, 2637
Theodore, bishop, 2337
Theodore I, Gothic king, 2204
Theodore II, Gothic king, 2208
Theodore (The Great), Ostrogothic king, 2214, 2234, 2255-60
 —Mausoleum, 2259
 —portrait, 2258
 —at Ravenna, 2231
Theodoric, Strabo, and Zeno, 2255
Theodosius I (The Great), Roman emperor, 2193, 2199
 —and S. Ambrose, 2323
 —bas relief, 2298
 —and Christianity, 2200, 2224
 —penance at Milan, 2323
 —shield, 2199
 —statue, 2198
Theodosius II, emperor, Constantinople fortified, 2200
 —laws edited, 2296-07
 —treaty with Attila, 2200

- Theodosius III**, emperor, 2355, 2357
Theodulf, bi-ship of Orleans, church built by, 2140
 —imperial legate, 2131, 2138
Theognis, of Megara, 1340
Theology, medieval, 3010, 3014, 3027
Theon, father of Hypatia, 2171
Theophano, empress (wife of Otto II), 2501, 2502
Theophano, empress, widow of Romanus II, 2510, 2511
Theophilus, emperor, 2424–25
Theophilus, patriarch of Alex., 2089
Theophrastus, 1485, 1486, 2061, 2076
Theophylactus, in Rome, 2770
Theotokos, 2337
Therapeutics, medieval, 3456
Thermopylae, 1101
 —Antiochus defeated, 1680, 1689
 —Gauls defeated, 865, 1526
 —Greeks at, 1101
Thermum, Aetolian League at, 1669
 —gargoyles from temple, 1014
 —Philip of Macedon at, 1677
Therodonts, ancestors of mammals, 120
Theron, of Agrigento, aid against Carthaginians, 1104
Theropoda, group of dinosaurs, 124
Thersites, Greek assembly, 830
Thosius, legend of, 786
Thespians, at Thermopylae, 1101
Thessalian periods, prehistoric Greece, 612
Thessaly, 988
 —beehive tombs in, 785
 —as city state, 1106, 1255
 —language, 980
 —Macedonia seized, 1674
 —Mycaenaea influence, 809
 —pottery in, 772
 —Turks seize, 4505
 —vases from, 611
Thetis, Hephaestus' refuge with, 845
 —nuptials, 1051
Theudebert, Frankish king, 2908
Theuderic I, Frankish king, 2208
Theuderic II, Frankish king, 2954
Theudisisel, Visigoth king, 2203
Theudis, Visigoth king, 2267–68
Thianga, Marquisa de, sister of Mme. de Montespan, 3995
Thiers, L. A., heads French government, 4380, 4387
Third Estate, in England, 4429
 —in France, 4114
 —in Spain, 4157
Thirty Tyrants, 2118
Thirty Years' War, 3584–98, 3619–36
 —anarchy in, 8700
 —map showing operations, 3018
Thiue, ring bezels from, 790
Thomas Aquinas, S.: see Aquinas
Thomas, Felix, and Assyrian architecture, 918
Thomasius, Christiano, German rationalist, 3949
 —on religious intolerance, 3621
Thompson, R. Campbell, excavations at Uval, 590
Thompson, Wm., political economist, 4982, 4983
Thomsen, O. J., classification of prehistoric graves, 141
Thomson, James, 4306
 —The Seasons, 3051, 4307
Thomson, Sir J. J., portrait, 5004
Thor, hammer, 2522
 —Testub's resemblance to, 738
Thorfinn, father of Eric the Red, in America, 2527–28
Thorn, Treaty of, 3142
Thorne, R., printing type, 3197
 —on the North-West Passage, 3570
Thornhill, Sir James, Walpole in the House of Commons, 3381
Thorout, fair, 2901
Thorvald, 2527
Thorwaldsen, Bertel, Ganymede, 4037
Thoth, 494, 641
 —in Teaching of Amenophis, 709
Thothmes I, Egyptian king, obelisk from Karnak, 702
 —and Syria, 658
Thothmes II, Egyptian king, problem of reign, 659
Thothmes III, Egyptian king, 400, 659–61
 —alliances with Mitanni, 729
 —fleet, 661
 —foes introduced, 486, 633
 —husband of Hatshepsut, 659
 —at Megiddo, 660, 809, 810
 —Minoan vessels brought to, 780
 —mother's statue, 678
 —the Napoleon of Egypt, 659
 —pictures from grave, 1535
 —plant drawings, 683
 —Rekhnum his prefect, 700
 —relationship with gods, 646
 —and Syria, 680, 1013
 —tribute from Kheta, 731
Thothmes IV, campaign in Naharhi, 66
 —worshipped, 749
Thothmes, Egyptian sculptor, 704, 707
 —head of Neferiti, plate, 763
 —limestone figure of Neferiti, 712
Thooth and Thinkers, of the 18th century, 4049–76
Thrace, barbarian, 855
 —Gauls in, 1583
 —in Macedonia, 1105
 —under Persian rule, 1091, 1096
 —Turkey regains (1923), 1480
 —wine imported from, 848
Thraclaus, disappearance, 2478
 —in Priam's confederacy, 861
Thracio-Phrygians, migration, 861
 —Trojan a branch, 865
Thrale, Mrs., and Dr. Johnson, 1217
Thrasamund, Vandal king, 2260
Three Chapters, controversy, 2341
Three Children of Babylon, in fiery furnace, 2339
Three Cities: see Tripoli
Three Estates, in France, 4113, 4114
Three Substantials, in monasticism, 2278
Thrust Plane, in geology, 99
Thuburho Majus, temple of Saturn, 1982
Thucydides, 8, 1343
 —book, 11, 1240
 —Greece described, 1540
 —historical conceptions, 1563
 —on Peloponnesian War, 1240
 —Pericles' speech, 1121
 —on rôle of women, 977
Thucydides, a. of Melesias, 1237
Thuthia, goddess, 1759
Thuggee, suppression, 4454
Thunardorbt: see Palaeolithic
Thunderspell: see Bull-roarer
Thurid, 1238, 1538, 1807
Thurn, Count, and 'defenestration of Prague,' 3590
Thuti, story of, 708
Thutmose: see Thothmes
Thysdrus, amphitheatre, 2057
Ti, reliefs from tomb, 487, 500, 501
Tiahuanaco, culture centre, 2592–93, 2596–97
 —Kalasasaya, stairway to, 2506
 —Puerta del Sol, 2593, 2596
 —statue of a god, 2598
Tiamat, Assyrian goddess, 978, 970
 —Marduk slaying, 639
Tiber, bridges over at Rome, 2036, 2038
 —first stone bridge, reconstruction, 2036
 —Pons Mulvius, 2038
 —regulation of, 2049
 —temple of Aesculapion on island, 2240
Tiberias, Hittite sculpture from, 731
Tiberius, Claudius Nero, 1846, 1846–52, 1873
 —cameo portraits, 1848, 1850
 —feminine influence under, 3986
Tiberius II, Byzantine emperor, 2272
Tiberius III, Byzantine emperor, 2353
Tibet, early emigration from, 415
 —monasteries, 2236
 —natural features, 436, 445
Tibetan Alphabet, 1062
Tibetans, early menace to China from, 2544
Tibullus, character of poetry, 1892
Tibur, temple of Hercules, 2032
 —treaty with Rome, 1603
Tidal Theory, diagrams, 68–69, 73, 71
Tides, phenomena of, 67, 70–71, 76
Tientsin, treaty of, 4659
Tierra del Fuego, 311–13
 —Hondius' map of, 3578
 —tribal types, 312, 313
Tiflis, Catherine the Great and, 3940
Tiger, Sabre-toothed, reconstruction, 190
Tighe, William, friend of Wesley, 1290
Tiglath-Pileser I, career of conquest, 676
 —lion-hunting, 965
 —Mushki routed, 797
Tiglath-Pileser III, 820–30, 881, 882
 —methods of warfare, 883
Tigranes I, the Gt., of Armenia, 1776, 1777
Tigraucerta, captured by Linculius, 1776
Tigris, 429–30, 455
 —at Bagdad, from the alt, 454
 —Roman passage of, 1908
Tigris-Euphrates, old delta, fertility of, 511
Tikal, Maya architecture, 2581–82
 —temple crowning pyramid, 2577
Tikhon, Patriarch, and church treasure, 4971, 4972
Tillet, Benjamin, and dockers' strike, 4679
Tilly, Count, 3592, 3595, 3641, 3647, 3649
 —at battle of the White Hill, 3638
 —besieging Magdeburg, 3646
 —defeated at Breitenfeld, 3647
 —portrait, 3637
Tilist, treaty of, 4102, 4191
Tilt Hammer, method of use, 1559
Timasene, historical writer, 2160
Timaeus, on date of siege of Troy, 860
Timanthes, Greek painter, 1934
Timar, resources of the Near East, 467
 —Roman use in building, 2030
Timber Industry, in Western U.S.A., 4505, 4506
Timbuktu, 8303–65
 —cathedral mosque of Sankoré, 3395
 —market day, 3408
Time, among primitive peoples, 298
 —conception of, 5008
 —Egyptian, 861, 688, 704
 —geological, 43
 —Maya, 2576
Timing, ruins, 1990–91
Timocharris, observation of stars, 2061
Time of Troubles, in Russia, 3026
Timoleon, 1415
Timomachus, painter, 1930
Timosthenes, of Rhodes, geographical works, 2189
Timothy Aalrus, patriarch of Alexandria, 2340
Timucuna, tribe, 2572
Timur: see Tamerlane
Tin, or Jnpter, god, 1175
Tin, prehistoric uses, 685
Tin-minae, in Britain, 1695
 —in Spain, 015
Ting-hsin, pottery from tomb, plate f.p. 2552
Ting Yao, porcelain, 2563
Tin Islands, 1180
Tin-smith, in France, 4115
Tinoretto, supposed portrait of Vesalius, 3339
 —Venetian senators, 3015
 —Vincenzo Morosini, 3615
Tipi, Indian tent, 289
Tipoa, Inca dwelling house, 3382
Tippu Sultan, 4110, 4448
 —French collision with, 4447
 —palace, Seringapatam, 4446
 —succeeds Haider Ali, 4446
Tiridates III, of Armenia, 2118, 2123, 2192
Tiridates, of Parthia, dynasty founded, 1586
Tirol, and Bavaria, 3757
 —Napoleon seized, 4101
 —Roman conquest, 1871
Tirpitz, Admiral, on Jutland, 4853
Tiryns, 773
 —Cretan art in, 836
 —frescoes from, 783
 —frieze from, 842
 —Homér's account, 784
 —Minoan culture in, 772–73

Tiryns—*cont.*

- palace, Homeric type, 810
- reconstructions, 781, 785
- herd showing warriors, 801
- Tissaphernes, satrap of Sardis, 1240–47
- and Sparta, 1245–6
- Tithes, 2671–72
- payment in kind, 3455
- Titian, portrait of Caterina, Queen of Cyprus, plate f.p. 3045
- Charles V, 3317
- Doge of Venice, 3015
- Philip II of Spain, 3460
- Pietro Aretino, 3247
- Titles, or Titienses, tribe, 1644, 1795
- Titil, plebeian gens, 1644
- Titiles, in Egypt, 486
- Titmarsh, M. A.: see Thackeray, W. M.
- Titus, emperor, 1857, 1854–60
- Arch of, 1850, 1916, 1928, 1958, 2018
- Colosseum built, 2023
- Jerusalem besieged, 1657–58
- Titus Quinctius Flamininus, 1679, 1687
- Rivoli, Hadrian's villa, canal at, 3044
- — — mosaic from, plate f.p. 2021
- — — remains of baths, 2237
- war with Rome, 2774
- Tizi, Queen, with Amenhotep III, 709
- Nubian temple, 679
- sculptured head, 678
- seal from Mycenae, 786
- in temple of sun god, 745
- worshipped, 749
- Tiziano Vascellio: see Titian
- Tlaloc, rain god, in Aztec pantheon, 3364
- shrine, 3365
- Tlalteolco, Aztec settlement, 3363, 3365, 3374
- Tlaxcala, republic, opposition to Aztecs, 3361, 3370
- Tobacco, in Colonial America, 4012
- Introduced into China, 3525
- into Europe, 3447
- in Virginia, 3518
- Toba dynasty, in China, 2209
- — — rock sculptures, 2549, 2550
- Tobago, captured by buccaneers, 3812
- Tobolsk, Russian royal family at, 4009, 4061
- Tocharian, dialect, 807
- Todar Mal, Akbar's minister, 3707
- Tosni, Roger de, 2612
- Toga, Roman, 2011, 2012
- use in modern sculpture, 2242
- Togo, Admiral, annihilates Russian fleet, 4568
- — — portrait, 4567
- Togoland, annexed by Germany, 4630
- Toilet, of 18th century gentleman, 4236
- — — lady, 4243, 4244
- of Greek lady, 374
- of Roman lady, 2007, 2013
- Tokodi, Hungarian rebel, 3752
- Tokuzowo Shogunate, entrance to tombs, 4412
- — — overthrow, 4413
- Tokyo, international conference at, 4419
- Tokugawa tombs, 4412
- university founded, 4417
- Toland, John, follower of Locke, 4050
- Tolsdo, 3207
- architectural styles, 3273
- cathedral, 2403
- churches, 3274, 3275, 3277
- Puerta del Sol, 3274, 3276
- schools, 3201
- Tolsentino, Treaty, 4093
- Tolentin, Niccolò da, 3209
- Tolsroten, Religious, in Colonial America, 4008
- — — Cromwell on, 3729
- — — economic reasons for, 391
- — — in France, 3581, 3805
- — — in Russia, 4013
- — — in Rome, 2200
- Tolhuiz, Louis XIV at, 3741
- Tolistobogii, Gaulish tribe, 1520
- Toll Gates, 4252
- — — in France, 4119
- Tolstoy, Leo, mental state, 5009, 5070
- Tolteo Art, 2530, 2595
- — — architecture, 2589, 2592, 2594
- — — Aztec compared with, 3370

Toltec Art—*cont.*

- — — masks of hard stones, 3300
- — — pottery, 3376, 3377
- Toltec Empire, 470, 2589–90
- — — Children-Itza given to, 3377
- — — collapse of, 2590, 3361
- — — religion in, 2589–90
- — — writing, 1004
- Tombs, Babylonian, 534
- — — Chinese, Ming, figures, 3511
- — — Egyptian, at Akhetaton, 687
- — — evolution of, 490–1, 503
- — — Middle Kingdom, 515, 503
- — — Greek, 1262–63, 1280–81
- — — Street of the, 1267
- — — India, Mogul, 3784, 3789–89
- — — Moslem, 3167–68, 3179
- — — Neolithic, 269, 270, 612–1
- — — Plantagenet, 2743, 2717
- — — Roman, Britain, 2140
- — — early, 1595
- — — Republic, 1822–23, 2003
- — — Renaissance, at Westminster, 3240
- — — Shadrin, 2744
- — — Samana, 2781
- — — Seljuk, 2785
- — — Tye, 1178
- — — See also Barrow: Beehive Tomb; Burial Customs; Catacombs; Etruscan Art; Graves; Pyramids; Sarcophagi; Ura Burial
- Tomak, Russian colonisation, 3929
- Tonnage and Poundage, 3664
- Tonsure, Irish, 2682
- Tools, Egyptian, 33, 34, 489
- — — evolution of, 241
- — — prehistoric varieties, 205
- Top, whipping, Babylonian, 581
- Torah, or Book of the Law, 1952
- Torcello, city, 3029–30
- Torch Race, in Greece, 1322
- Tordesillas, treaty, 3533
- Torpedo, in Great War, 1833–34, 4860
- — — in submarine warfare, 4854, 4858
- Torres Vedras, lines, 4104, 4192
- Torricelli, Evangelista, invented barometer, 3825
- Torrignano, Pietro, bust of Henry VII, 3142
- — — (tomb of Henry VII, 3238, 3210
- Torrion Mountains, 82
- Torrion Sandstone, characteristics, 81, 82, 93
- — — overlying quartzite, 99
- Torebjærg, armour of, 2215
- Tort, 2164
- Torstensen, Count Lennart, 3653
- Tortuga, buccaneers, in, 3810
- — — French recapture, 3811
- — — Spaniards sack, 3810
- Torture, in Bolshevik Russia, 4961
- — — in France, 4119
- Tory, G., printer, 3192
- Tosa Clan, surrenders itself to throne, 4414
- Totomism, cult of, 210, 401, 042
- — — in Egypt, 494, 642
- Totila (Ostrogoth), 2206, 2267
- Totonao peoples, Toltec influence, 2500
- Toulon, Napoleon at, 4179, 4180
- — — plague (1720), 3116
- — — Russian fleet at, 4562
- Toulouse (city), Visigoth capital, 2214
- Toulouse (county), 2820, 2830
- T'ou-mi, Tibetan alphabet of, 1002
- Tournai, Black Death, 3106
- Tournament, 2080, 2985
- — — tilting, plate f.p. 2927
- Tournour, Cyril, The Atheist's Tragedy, 3712
- Tours, Abbey, 2438
- Tours, battle of, Saracen defeat, 2361
- Tourville, Admiral, at La Hogue, 3749
- Towser, water, of Homeric Troy, 863
- Town, Babylonia, description, 570
- — — Egyptian plan, 633
- — — growing autonomy, medieval, 2739, 2807
- — — growth and prosperity, 4425
- — — origin, 223
- — — Rome and the, 240
- — — scenes in medieval, 2903
- — — tribal relations with, 223
- Town Lifts, advantages, 4996
- — — in Colonial America, 4011

- Town-planning, in Britain, 2148, 2150
- — — Roman, 2050–59
- Townshend Acts, and American colonies, 4029
- Toynbee Hall, Whitechapel, 4410
- Toys, in Babylonia, 540
- — — of Roman children, 2006
- — — See also Games
- Trachodon, dinosaur, 126, 129
- Tractor, R.M.A., hauling gun, 4414
- Trade, in ancient times, 1519, 1562
- — — in Babylonia, 458
- — — British, 4427
- — — of China, early, 3511
- — — Egyptian, 540, 704
- — — fundamentals, 4687
- — — medieval, 2898
- — — origins, 292
- — — retail and wholesale, 4427
- — — in revolutionary France, 4136
- — — in Roman world, 2129–2136
- — — Syrian, transport methods, 2135
- — — in Turkey, England, 3490–91
- — — See also Commerce
- Trade Disputes Act (1906), 4080
- Trade Journal, beginnings, 4673
- Trade Routes, in Bronze Age Europe, 619
- Tradesmen, in 14th, 15th and 16th cents., 2904, 3485, 3491–92
- — — shopkeepers and customers, 2904
- Trads Unions, 392–93, 1607
- — — in France, 4151, 4087
- — — in Great Britain, 4670, 4672, 4680
- — — in Rome, Ancient, 1823
- — — in U.S.A., 4618
- Trade Winds, and civilization, 330
- — — regions of, 338
- Trading Companies, 4428
- Trafalgar, battle of, 4100, 4101, 4102
- Trafalgar Square, London, communist meeting, 5073
- Tragedy, Greek, 1350–52
- — — Seneca's influence, 2216
- Traitor, death of Elizabethan age, 3555
- Trajan, 1993–99
- — — arch at Beneventum, 1928
- — — on arch of Constantine, 1929
- — — and Christians, 2183
- — — coin, 29
- — — column, 1731, 1929, 1960–68, 3210
- — — bridge on, 2040
- — — reliefs from, 1723, 2141
- — — Dacian campaigns, 1964, 1966
- — — in Daubian city, 1981
- — — empire under, 404–05, 406, map, f.p. 1962, 1963–80
- — — forum of, 1923, 1968, 2000
- — — glorification of, 1965
- — — monuments of his reign, 1028
- — — nominated by Nerva, 1861
- — — Ostia harbour, 2050
- — — portrait in statue, 1026
- — — in the Senate, 1876
- — — statue, 1964
- Trajanus Decius, emperor: see Decius
- Tramp, Todor Age, 3449
- Tramways, woman conductor, 369
- Transalpine Gaul, Romans in, 1782–83
- Transcendentalism, in Middle Ages, 3215–16
- — — romantic style, 4310
- Transit, League of Nations and, 4029
- Transjordanian, British mandate, 4641
- — — Saul's possessions in, 818
- Transmigration: see Metempsychosis
- Transoxiana, campaigns in, 2355
- — — in Samanid kingdom, 2779
- Transport, in China, 3519, 5068
- — — 19th century, 4683
- — — of plimitive man, 285, 291
- — — Redskin travois, 290
- — — revolution of, 4343, plate f.p. 4358, 4607, 5064–65
- — — Roman, 2133–35
- — — steam power, and, 4363
- — — 20th cent., 5064–65
- — — in U.S.A., 4408, 5008
- Transport Workers' Federation, B. Tillett and, 4679
- Transubstantiation, Wycliffe's attack on, 3074
- Transval, from 1852 to 1914, 4620–24
- Transylvania, under Hapsburgs, 3753
- — — independence (1571), 3480

Transylvania

Transylvania—*cont.*
 —Roman colonisation, 1967
 —Turkish aggression in (1601), 3751
Trap, for fish and birds, Egypt, 485
 —Solomon Islands, 282
Trasimene, Lake. *Battle of*, 1589, 1656
 1657
Traun, Austrian general, 3893
Travelling, in England 18th century, 4214, 4251
 —in Germany, 18th century, 3977, 3978
 —on horseback, 3453
 —medieval coach, 3452-3
Travois, Red-kin method of transport, 290, 291
Treasurers of the God, Egyptian title, 496
Treadmill, women at, 1497
Treaty Ports, in China, 4626
Trebbia, S. Columbian's death at, 2680
Trebbia (river), Hannibal's victory, 1656
 —Suvorov's victory, 4094
Trebizond, captured by Russians, 4764
Trebonius, at siege of Marseilles, 1723, 1732
Trees, worship of, 448, 455, 767
Trench, in modern warfare, 4708, 4802, 4803, 4804
Trent, Council of, 3491-62
 —and Aristotle, 4035
 —French exception to, 3582
 —Jesuits at, 3686
 —supremacy of Rome affirmed, 3603
Trent, S.S., British commissioners on, 4392
Trentino, Italian campaigns, 4765
Trepanning, among savage peoples, 203
Trees, appearance on stage, map, 871
 —kinmen of Climmerians, 890
Trèves, 2133, 2231
 —Roman bridge, 2040
 —gateway, 2125
 —sewers, 2052
 —tablet in cathedral, 2430
Treviri, Celtic spoken by, 1908
Trevithick, Richard, business card, 4355
 —and steam locomotion, 4355
Trezza, Jacopo da, medal, 3460
Triad, Chinese secret society, 4648
Triangulus, nebula in, 55
Triano, *Treaty of* (1920), 4877
Triassic Period, plate *f.p.* 96, 102
Tribe, 223, 311-14, 389
 —in Greece, 1120
 —spirit of 314-20,
Tribunates, in Rome, 1648
Tribute of the World, ruby of Shah Jehan, 3770
Triceratops, reconstruction, 125
Triennial Act, 3672
Trigonometry, Arabic influence, 2534
 —Greek application to astronomy, 2080
Trigrams, of Fu-Hsi, 1070
Trilobites, extinction, 107
 —fossils of three varieties, 92
Trilobites, Age of : *see* Cambrian System
Trimontium, fort, Britain, 2034
Trinidad, map, 317
 —modern conditions, 4639
Trinidad, The, Magellan's ship, 3537
Trinil, Java, *Pithecanthropus* found, 155
Trinity, The, Christian views, 2331
 —S. Augustine's belief, 2336
Triple Alliance, becomes Quadruple, 3881
 —in 1607, 3741
Tripoli, in Carthaginian times, 1181
 —in crusading era, 2799, 2810
 —Italy and, 4560, 4580
 —Norman conquest, 2695
 —Roman arch, 2056
Triptolemus, relief panel, 1362
Trifeme, Athenian, 1241
 —Venetian, 1639
See also Ships
Trithemius, Abbot, on monastic reform, 2285
Trochu, General, and Third Republic, 4385
Troem, Gaulish tribe, 1520
Troglodytes, African anthropoids, 174
 —Amerian caves, 2572

Troilus, pursuit by Achilles, 1041
 —at sacred spring of Apollo, plate *f.p.* 1169
Trois Frères Cave, sorcerer, 205, 206, 200, 300, 3262
Troitsa, monastery near Moscow, 3923
Trojan War, 856, 983, 986
 —date of, 788
Troilope, Anthony, 4545-46
Troilope, Frances, Michael Armstrong, 4405
Trophimus, reliquary, 2186
Tropical Diseases, 3118
 —19th century work, 5051
Troppau, Congress of, 1261
Troths, Adm. von, on Jutland, 4859
Trotsky, Léon, 4951-52, 4955-58
 —alliance with Zinoviev, 4975
 —breakdown, 4974
 —defeats Judenich, 4963
 —expelled from Russia, 4976
 —Lenin's letter on, 4974
 —portrait, 1965
 —and Russian Revolution, 1950
 —reviews Lettish regiment, 4966
Troubadours, 2963-64, 2965
 —Renaissance spirit, 3221
 —use of national language, 3223
Trout, prehistoric sand drawing of, 263
Trosvères, 2963-64
 —schools founded, 2967
Troy, 798-99, 852-73
 —Alex. the Gt. at, 1430
 —battles and towers, 837
 —collapse of, 841, 1339
 —date of siege, 486
 —earliest civilisation, 591
 —fortified by Phrygian newcomers, 700
 —ground-plan of 2nd and 6th cities, 865
 —Homer's description, 832
 —Priam's palace at, 839, 864
 —Roman city, 862
 —Schliemann's excavations, 501, 553
 —second palace, 867
 —siege of, 674, 836
 —strategic position, map, 852
 —water-tower of Homeric city, 863
Troies, Ivory ensket, 2624
Troyes, Council of, recognition of Knights Templars, 2802
Troyes, *Treaty of* (1420), 3120
Trubetskoi, Russian patriot, 3928
Truce of God, provisions, 2609
Trumpet, origin, 206
Trusts (U.S.A.), 4099
 —campaign against, 4515, 4715
 —committee on, 5000
Truth, in Piers Plowman, 3028
Truxillo, culture centre 2580, 2592, 2594
Ts'ai Lun (A.D. 105), writing material invention, 1071
Tsar, title, 3480, 3920
Tsarskoye Selo, capture of, 4954
 —Nicholas II at, 4948-49
 —strikers received at, 4942
 —Tsaritsa's bedroom, 4945
Tsetse, fly, 236
Ts'i Duchy, disaffection in, 443
Tsinan-fu, Nationalist army entering, 4603
Tsingtau, fall of (1914), 4751
 —German occupation (1897), 4662
T'sin Province, Tatars in, 443
T'so Chuan, Chinese work, 2548
T'so State, Chinese wars with, 443
Tsen-Chow, possibly Zaiton, 3510
Tsushima, battle of, 4568
Tuaa, wife of Inua, 701
Tubal Cain, in Caedmon MS., 2470
Tuberculosis, Koch and, 5651
 —modern decline, 5056
 —result of war, 4907
 —wartime discoveries, 4791
Tuo d'Andonbert, Aurignacian cave, 250
 —bison models, 252
Tucker, Abraham, orthodox Christianity, 4069
Tuoman, congress, 4323
Tudor architecture, 3440-41 3447, 3493-96
Tudor, House of, 3142
 —Parliament under, 3658

Turkey, Empire of

Tudor Period, education under, 3336, 3499, 3506
 —Edward VI, 3488
 —coronation procession, 3480
 —Elizabeth, 3492, 3474, 3487
 —and Armada, 3476, 3489, 3544, 3545
 —Parliament under, 3659
 —and Philip II of Spain, 3488-69, 3475-77, 3479, 3541
 —Henry VII, 3442, 3207, 3485-56, 3500
 —chapel of, 3440
 —Henry VIII, 3299, 3492, 3501
 —armour of, 2041, 2945-46
 —breaks with Rome, 3342
 —despotism established, 3343
 —Field of Cloth of Gold, 3508
 —Parliament under, 3658
 —life in, Henry VIII to Elizabeth, 3423, 3441-45, 3484-3501
 —Elizabeth, 3552-77
 —literature, 3338, 3353, 3558-60
 —London in, 3450, 3553-63, 3361-67, 3568-69
 —Mary, q. of Scots, 3461, 3476, 3479
 —Mary Tudor, queen, 3460
 —navy in, 3491, 3541-43, 3570
 —pastoral life, 3433
 —Renaissance in, 3333, 3490, 3562
 —wedding feast, 3445, 3564
See also Elizabethan Age
Tu Fu, Chinese poet, 2552-53
Tughlak, dynasty, 3167
Tughlak Shah, Sultan of Delhi 2992
 —tomb, 3167
Tughri Beg, Seljuk leader, 2514, 2781-2, 2784, 2786
Tugh, emblems of Mongolian authority, 2852-53
Tug-of-war, legend, 353, 354
Tulleries, bread distribution, 3856
 —removal of French court to (1789), 4082
 —revolutionary mob at, 1086
 —riot at, 4172
Tukulti-Ninurta I, king of Assyria, 673
Tukulti-Ninurta II, king of Assyria, 670
Tula, early factories at, 3931
Tullius, Servius, census instituted, 1796
 —figure on tomb, 1095
Tullus Hostilius, destroys Alba, 1599, 1615
Tulsi, court painter of Akbar, 3769
Tumulus : *see* Barrow ; Earthwork
Tunbridge Wells, in 18th century, 4254
Tundra, maps, 333, 343
Tung Ch'i-ch'ang, Chinese artist, 3520
Tungus, 2569 : *see also* Mongolia
Tun Huang, Chinese MSS. found, 2556
 —sculpture of the Buddha, 1504
 —Thousand Buddhas, caves 1502, 1504
 —banners from, 1502
Tunis, Blake's expedition to, 3809
 —France acquires, 4556
Tunis, Kingdom of, 3591
Tunis, Lake of, 1178
Tunnelling, Roman, 2040, 2043
Tupac Yupaqui, Inca ruler, 3581
Tura, limestone from, 701
Turbot, ancestor, 114
Turco-Austrian War, cavalry charge, 3880
Tureoman, race, 2644
Turenne, Marshal, 3597, 3599, 3651
 —campaign, 3800, 3740
 —death, 3742
Turgot, R. J., French minister, 3916
 —and American independence, 394
 —on philosophy of history, 4060
 —portrait, 4060
 —on progress, 6087
Turia, Roman lady, 1827
Turin, battle of (1706), 3759, 3997
Turin, botanical garden destroyed, 4291
 —Parliament at (1800), 4377
Turkey, Empire of, map, 409, 410
 —armistice signed (1918), 4784
 —Austria and, 3913
 —Balkan States and, 4397, 4581
 —Britain and, 4554
 —debt to Byzantium, 2039
 —enters Great War, 4782

Turkey, Empire of—*cont.*

- Italy declares war on (1911), 4580
- Lepanto and, 3475
- Morea reconquered, 3380
- rise and fall, plate *f.p.* 402
- rivalry with Venice, 3047
- and Russia, 3763, 3912, 4203
- and sea power (16th cent.), 3047

Turkey, Republic of, 1855–86, 4898

- failure of democracy, 5080
- ideal of government, 4262
- Latin alphabet adopted, 1897
- post-war problems, 4884
- and treaty of Sèvres, 4877
- westernisation, 368, 4855, 1897
- women emancipated, 368, 4885

See also Ottoman Empire; Turks

Turki, Alpine Race in Asia, 230

Turkistan, Kanishka's sovereignty, 1981

- Mongol invasion, 347
- mounds in, 27
- pottery in, 591
- prehistoric emigration from, 803
- Turkopolis, meaning of name, 2811
- Turko-Scythian, races, 2500
- Turks, 2206, 2513–14
- in Asia Minor, 430, 2645, 2814
- and Crusades, 2645
- European settlement, 410, 2991
- evolution, 2750, 3147
- and Magyars, 3147–3163
- in Palestine*, 809
- Seljuk, 2779–85
- Uighur, 2784, 3147
- warriors, 15th cent., 3160

See also Ottoman Turks; Seljuk

Turapke, introduction, 4251, 4344

Turnu Severin, 1907, 2040

Turoe House, month in, 1520, 1522

Turpin, Dick, 4213

Turquoise, Egyptian bracelet, 189

—in Egyptian tombs, 461

—mines in Sinai Peninsula, 553, 580

Turki, modern naval, diagram, 4848

Turkha, 794, 1109

Turtle, sucker-fish hunts, 284

Tuscan architecture, 1911–12

Tuscan League, 2763

Tuseany, under Leopold II, 4085

—medieval, 2752, 2755, 2759

—painting in, 3041

—as republic, 4369

Tusoulum, counts of, 2503–04, 2772

—name, 1150

—Roman absorption, 1253

Tutankhamen, Huy his vizier, 359, 681

—marriage, 751

—mummy case, plate *f.p.* 753

—objects from palace, 699

—son-in-law of Akhnaton, 660, 667

—succeeded by Ay, 751

—tomb, 359, 554

—treasures from, 698

Tutor, in 18th century Germany, 3965

Tutush, s. of Alp Arslan, 2792, 2795

Twelve Tables, Laws of, 1648

Twilight, Anubis, god of, 641

Twine-maker, Egyptian, 355

Two Brothers, Tale of, Egyptian story, 579, 708

Two Sicilies, Kingdom of the, 2695

Tyana, in Hittite territory, 717, 719

Tyere, Jonathan, and Vauxhall Gardens, 1242

Tyler, Wat, 3099, 3101

Tyne, river valley, and Hadrian's wall, 1722

Tynnias, portrait, 1262

Typhus, in Bolshevik Russia, 4908

—Haygarth's description, 5044

—method of conveying, 3115

—modern disappearance, 5056

—as tropical disease, 3118

Tyrannicides, Harmodius and Aristogiton, statues, 1094

Tyrannosaurus, 125, 130

Tyranus, in Greece, 1094, 1104, 1114, 1115, 1116

—in Italy, 2765

—in Syracuse, 1094, 1104–05, 1575–77

Tyre, 1177–79

—Alexander conquers, 1407, 1439

—Hiram's tomb, 1178

—Mediterranean trade, 805

—ship of 9th cent. B.C., 1535

Tyrol: *see* Tirol

Tyrrrell, Father, Jesuits expel, 3091

Tyrrhenians, piracy, 1518

See also Etruscans

Tyrtæus, Spartan poet, 1047

Tzu-Hsi, empress, 1655

—foreign policy, 4666

—restoration of palace, plate, 4657

—sleeping apartment, plate, 4653

—suppresses Taiping rebellion, 1647, 1655

U

Uaziz, Egypt, snake deity, 1007

Uberti, family, 2704

U-boat: *see* Sithmarine

Uccello, Paolo, Ront of San Romano, 3299

Ufa, prison death rate, 4967

Uganda, British protectorate, 1634

—Ateia, king of, 4634

Ugo, Margrave of Tuscany, 2755

Ughur Turks, 2784, 3147

Ulus, possibly Ilacusa, 736

Uracocha, Inca ruler, 3800

Utlanders, in S. Africa, 4621

Ukraine, becomes independent, 4880, 4949

—Central Powers and, 1956

—prehistoric painted ware, 772

Ullas, gothic alphabet, 1062

—missionary work, 2336

Ulanor, Vladimir Ilyitch: *see* Lenin, N.

Ulm, battle of, 4100, 4189

Ulpian, Roman lawyer, 1980, 2112–13

Ulrica Eleanor, q. of Sweden, 3886

Uler, and Home Rule, 4566

—and Irish Free State, 1900

Ultracuria, Nicholas de, teaching, 3018

Ulysses: *see* Odysseus

Umbrella, of Ashur-nasir-pal II, 877

—Asian royal insignia, 2852

—of Tatar nobles, 2353

Umbrians, war with Rome, 1600

Umbrian School of Painting, 3041

Umbro, R., in Etruria, 115–2

Umbro-Sabellian dialect, 1880

Umiak, Eskimo boat, 292

Umma, boundary, 639

—Lagash defeats, 430

Umman-Manda: *see* Medes

Uman Sanctam (1302), papal bull, 3003

Uncle Tom's Cabin, political influence, 4889

Understanding, seat of, in ancient thought, 2005

Underworld, Minoan beliefs, 770

Unemployment, in early 19th cent., 4287

—in Great Britain, 5081, 5084

—in imperial Rome, 2002, 2004

—protection and, 4481

—riots (1920), 4909

—Tudor Period, 3486, 3489

Unit Jacobites, 2342

Uniformity Acts, political results, 3601

—and Puritanism, 3707

Unigenitus Bull, condemns Jansenism, 3809

Union Act (1840), re-uniting the

Canadas, 4004

Union League, and the Southern States, 4492

Union of Socialist Soviet Republics, modern Russia, 4966

***See also* Russia, Bolshevik**

Union Pacific Railway 1187, 4502

United Empire Loyalists, 4597

United Kingdom, export trade (1900–1913), 4087

***See also* Great Britain and separate countries**

United Provinces, Netherlands, formation, 3078

—Elizabeth and crown of, 3475

United Provinces of the River Plate, 4323

United States of America, 4487–4520, 4711–38

—aliens, night classes for, 318

—American tribal unity, 319

—architecture, skyscraper, 5033, 5038

—and British naval losses in Gt.

War, 4855

United States of America—*cont.*

—capitalism triumphant, 5002

—Caribbean region, influence in, 4339

—Civil Service reform, 4510

—War: *see* American Civil War

—colour problem: *see* Negro problem, below

—Congress not imperial, 309

—co-operation in, 5074

—corporations in, 4098

—decisive economic factor in world politics, 396

—and disarmament, 4932, 4889, 4904

—first railway, 4357

—telegraph in, 4698

—geological connexion with N.W. Scotland, 96

—Great War, enters, 4784, 1735, 4771

—Immigration, Asiatic, 320

—Illa Island, 349

—European restriction, 396, 5084

—statistics, 319

—imperialism, 365

—Independence, Britain's colonial status and, 411

—conditions after a century of, 4487–1520

—declaration: *see* American Independence, Declaration

—economic reasons, 304–5

—war of: *see* American Independence, War of

—on eve of, 4711–88

—France, first troops in, 4770

—German attitude, 4851

—naval aid delayed, 4856

—convey, 4856

—St. Michel, troops from, 4782

—share in results, 4781, 4922

—Intelligence tests, 20th cent., 5078

—Japanese mission to, 4416

—late industrial development, 4685

—League Covenant, opposition to, 4921

—league with S. America, 4917

—mechanical power, 6088

—monopolies in, 4990

—Monroe Doctrine, 4277, 4321

—nationalhood, 3617

—negro problem in, 820, 4489, 4995, 5083

—Nicaraguan dependence on, 4338

—and Panama, secession of, 4335

—and peace treaties, 4877, 4921

—and Philippines, 365

—post-war conditions, 5007

—protection and free trade, 4489

—race sense, 320

—religious decline in, 4864

—romanticism in, 4313

—rural population declining, 5070

—slavery question, 4278

—socialism in, 4989

—S. American republics revived, 4321

—Southern states, status, 4459

—under Wilson, 4722

—Spanish war: *see* Spanish-American War

—territorial disposition (map) 4183

—Treaty of Versailles rejected, 4921

—unification, 4111

—wages in, 5068, 5074

—war declared on Great Britain (1812), 4112

—with Mexico (1845–3), 4337

***See also* America; American Civil War; American Independence; and New York and other cities**

United States Bureau of Labour, formation, 4517

Unities, The, classical canon, 4038

Unity, medieval desire for, 3024, 3026

Universe, Aristotle's conception, diag.
1182, 1183
—dimensions calculated, 60
—Greek conception, 47, 1452
—microcosm of, 49
—new discoveries, 5005
—Peking the centre, 1222
—*See also* Cosmogony; Cosmology;
World
University, in Germany, 18th century,
3954
—Mahomedan, 2533-4
—medical chairs at British, 5047
—medieval, 3015, 3020, 3131, 3444
—Latin in, 3021
—teachers' methods, 3015
—*See also* Scholasticism
Universities' Mission to Central Africa,
4631, 4632
Unkar Skelessi, treaty of (1833), 4272
Unn, the Deep-Minded, 2525
Unterwalden, canton, 3087-88
Unton, Sir Henry, wedding feast, 3445
Upanishad, teachings, 1207-08
Uppike, D. B., printer, 3184-0, 8199
—on Caxton, 3191
Upwawet, god of Asyut, 544
Ur, Sumerian kingdom, 510-542
—architecture, 519, plate f.p. 528, 532,
533
—vaulting used, 533
—art (3500 B.C.-2500 B.C.), 514, 523,
plate f.p. 529, 534-32
—gold objects, 514, 517
—Eannatum's victory over, 430, 527
—Elam's victory over, 523
—Ishtar figurines, 534
—Joint Expedition (British and
American) to, 523
—pre-Chaldean settlement, 458, 533
—seat of Sin, the moon god, 533
—Alugmut, 510, 519, plate f.p. 528, 529
Uraeus, hung from sun-disk, 744
—on Intef's diad, 533
—on Tutankhamen's diadem, 699
Urakastna, k. of Lagash, 431, 523
Ural-Altaic languages, maps, 324-5
Uranus, in Greek mythology, 47, 59
Urartu-en-Ptah, slab from tomb, 499
Urartu, Sardan, king of, 585
Urban II, pope, 3450-51
—and Crusading movement, 2797
—death, 2655
Urban IV, pope, and Sicilian succession,
2823
Urban V, pope, 3008
Urban VI, pope, 3008, 3008-70
Urban VIII, and Congress of 1618, 3032
—portrait, 3626
—on sack of Magdeburg, 3026
Ur-Bau, father unknown, 654
Urbicus, Lollius, execution of Chris-
tians, 2184
Urbino, culture at ducal court, 3242
—Fontana pottery, 3236
Urbino, Federigo Montefeltro, D. of, 3210
—library, 3222
—patron of literature and
art, 3246
Urdn, meaning of word, 3176
Ur-Engur, king of Sumner and Akkad,
432, 513, 523
—bulk wall of Ur, 527
—canal constructed, 525
—stele of, 536-7, 538
—temples of, 513, plate f.p. 528
—worshipping Sin, 533
—zigurat built by, plate f.p. 528
Urfé, Honoré d', his Astree, 3980
Uri canton, 3087-88
Ur-Nammu: *see* Ur-Engur
Urn-field Culture, 916-919
—*See also* Illyrians
Ur-Nina, king of Lagash, 439
—plaquo of period, 538
—receiving his children, 525
—royal statuette of period, 541
Urn, funerary, Etruscan, 1162, 1165
—hut urn, 1160
—origin of bust, 1170
—Villanovan, 1153, 1156
Uruquias, José, defeats Rosas, 4325
Uruquias, struggle for papal chair, 2197
Uruguay, 317, 4325
—European population, 4321

Uruguay—cont.

—growth of democracy, 4329
—Spanish ascendancy, map, 317
Uruj, Barbary corsair, 3805
Urukagina, king of Lagash, 523
—covenant with Ningirsu, 654
Ursedom, Gustavus Adolphus lands at,
3630, 3645
Userkat, Egypt's mercantile marine
under, 428
Ushabti figures, 1017
Uspenski Cathedral, Moscow, 3022-3
Usury, Church and, 2897, 2899, 3025
Utah, admitted to Union, 4507
—settled by Morimons, 4505
Uta-napishtim, Babylonian Noah, 588
—in Gilgamesh epic, 579
—passed to land of gods, 649
Utica, Roman city, 1615, 2134
—and Carthage, 1178, 1633
—foundation, 1177
—graves and harbours, 1631
Utrecht, Treaty of (1474), 3038
—(1713), 3760
—trading concessions, 3889
Utrecht, Union of, 3473-74
Uxellodunum, Roman siege, 1730
Uzal, palaeolithic tools at, 590
Uzbege, Abdalla Khan, 3795
—in Afghanistan, 3776
—independence asserted, 3794
Uzziah, revolt against Assyria, 885

V

Vaccination, history and results of,
5048-49
—Pope forbids, 4294
—suture, 6050
Vadimo, Lake, Boii defeated at, 1008
Vagabondage, Tudor Age, 3489
Vagrandy, in Elizabethan age, 3577
Vahyazdata, pretender to Persian
throne, 1090
Vaishnavas, belief, 2403
—members, 2394
Vaivyas, cave, 237, 453
Valdivia, German settlement at, 4391
Valencia (Spain), Cit's capture of, 2647
—pottery, 3264
—Saragosa expelled, 2827
Valenciennes British capture (1918),
4784
Valens, emperor, 2190-98, 2197, 2213
Valentinian I, emperor, 2193, 2190
—and religious toleration, 2221
Valentinian II, emperor, 2197, 2199,
2200
Valentinian III, emperor, 2205-07
—constitution of, 2185
Valentinus, Gnostic, 2092
Vale Press, 3109
Valerian, emperor, 2117
—Christians persecuted, 2186
—Sapor I defeats, 405, 2116-17, 2118,
2316-18
—sardonyx of Sapor and, 2116, 2318
Valerius Flaccus, Argonautica, 1894
Valerius Harporation, lexicon, 2171
Valla, Lorenzo, and Donation of Con-
stantine, 3452
Vallière, Louise de la, 3994
Valmy, battle of, 4087
Vandals, in Africa, 2201, 2263, 2264-05
—in Italy and Gaul, 2201
—kingdom, 2255, 2256
—Rome sacked, 2208
—in Spain, 2214
—*See also* Germanic Peoples: Huns
Van Lake, Byzantine defeat, 2787
Van der Meulen, A. E., Louis XIV at
Doud, 3843
—Louis XIV at Lille, 3343
Vandervelde, Emile, and Social Revo-
lutionists, 4973
Van Diemen, governor-general, 3546
Van Diemen's Land: *see* Tasmania
Van Dyck, Sir A., portrait of Gustavus
Adolphus, 3588
—James I, 3580
—Tilly, 3637
—Sir E. Verney, 3723
—Wallenstein, 3629
Van Loo, Charles, portrait of Maria
Leesinska, 3382

Vanloo, J. B., Louis XV, 3882
Van Loo, L. M., portrait of Choiseul,
3908
—Diderot, 4063
—Helvetius, 4120
Vannites, people of Ararat, 880
—*See also* Ararat
Vaphio, gold cups from, plate 756
—tomb, 785
—vessel from tomb, 758
Varangians, 2496, 2523-24
—talds, 2521
Varangian Guard, 2651
Varohi, historian, on Cellini's Auto-
biography, 3220
Varenaes, Louis XVI at, 4083
Varus, tragedy by, 1886
Varna, battle of, 3124, 3155
Varro, Terentius, 1888
—language, 1883
—on Latin language, 1870
—on religion, 1901
Varuna, on Ilitte tablets, 807, 808
—a moral god, 651
—worshipped by Mitanni, 593
Varus, P. Quintinus, Arminius defeats,
1848-49, 1872, 1935
—portrait, 1849
Vasari, G., Clement VII and Charles V,
3235
—Lorenzo the Magnificent, 3140
Vaseo da Gama, Cape of Good Hope
doubled, 410, 3531
—and Indian market, 3533
—voyages, map, 3526
Vases, boxer, Minocan, 769
—chieftain's, Minocan, 760
—Egyptian, funerary, 490, 701
—glass, 697, 698
—perume, Tutankhamen's, 698
—pre-dynastic, 38, 39, 463, 492, 493
—Entomema's silver, 535, 537
—François, 938, 1041
—Greek, black-figure, 1040-41, plate
7270, 1335
—Corinthian, 996-98
—Dipylon, 990-98
—geometric, 995, 996-98
—red-figure, 1263, plate-
1269-70,
1335
—trading in Corinthian, 1541
—white-ground funerary, 1264, plate
1271
—Hallstatt and Illyrian, 978, plate
928, 930
—harvester's, Minocan, 765
—Lata Minocan, plate 764, 765, 766,
769
—Middle Minocan, 604, plate f.p. 609,
699
—Minyan 611
—Mycenaean, plate 764, 789
—Roman, Arctine, 1041
—Scythian, plate 990, 932
—Sumerian silver, plate f.p. 529, 535
—Thessalian, 611
—*See also* Painted Ware: Pottery
Vasili III, ambassadors from, 3935
Vassy, massacre of, 3348, 3403, 3164
Vasvar, Peace of, 3751
Vatican, Rome, 3008
—library founded, 3323
—prototype in ancient Rome, 1750
—Raphael's Disputa, fresco, 3227
—St. Peter with the keys, 2482
Vauban, Sébastien le P. de, 3748, 3750
—and Michelangelo's fortifications,
3227
—opposition to Louis XIV, 3844
Vaudois, persecution, 3000
Vaughan, Lord John, in Jamaica, 3814
Vauit, 2803, 2866-68, 2871
—for burial, Babylonla, 534
Vaulting, Gothic, 2369-71
—Moorish approach, 3273, 3275
—relation to Mahomedan, 3273
—Roman, 2032-33, 2866
—separtite, 2870
—shafts, 2881
—*See also* Architecture
Vaux, Fort, in 1920, 4762
Vauxhall Gardens, Rowlandson's draw-
ing, 4242
Vascello, Tiziano: *see* Titian
Vedanta: *see* Upanishada

Vedas, Brahmanic reading of, 2405
 —system of handing down, 2305
 —taught on Kullasa, 2394
See also Rig-Veda
Veddas, Ceylon, an ancient type 200, 217, 218
Vedic Aryans, paradise, 2394
Vedic Literature, 807
See also Rig-Veda; Vedas
Vegetables, use and cultivation 16th cent., 3442-3457
Vegetation, and climate. map, 338
 —European, map, 313
 —geographical distribution, 433
 —in northern climatic zone, 340
 —in trade wind area, 336
Veil, 1252-53, 1801
 —remains from, 1601
 —Roman debate after fall, 1011
 —school of sculpture, 1174
 —stage of, 1717
Velazquez (painter), 3245, 3247
 —portrait of Philip IV., 3740
Velazquez, governor of Cuba, explorations, 3304
Velland, Germanic queen, 2217
Vellannodunnm, Roman siege, 1731
Venaa, Finnish name for Russia, 2472
Venables, General, in Hispaniola, 3811
Vendémiaire, rising of, 4691
Vendôme, L. J., Duc de, French general, 3757
Veneral disease, entrance into Europe, 8115
 —modern measures, 6057
Venet, tribe, 2472-73, 2475
 —elect opposed to Caesar, 1732
Venatia, modern, proposed cession to Italy, 4380
Venetia, Roman Province, Attila's destruction, 3020
Venetian Art, architecture, 3030, 3033, 4032
 —painting, 3035, 3040-41, 3041-47
 —sculpture, 2243, 3039
Venatian glass, 2814, 3033
Veneziano, Bartolommeo, Lodovico Martinengo, 3047
Venezuela, 317, 4334
 —boundary dispute, 4510, 4575
 —Miranda in, 4322
Vengeances, primitive instinct, 1059
Venice, 3020-48
 —Adriatic controlled by, 2751, 3533
 —Cabinet meeting in Doge's Palace, 3036
 —Campanile, 3041
 —Chiesa del Redentore, 4032
 —Colonnade at base, 2243
 —constitution, 3031, 3035
 —Connell of Ten, 3035
 —Crusaders helped, 2740, 2800
 —Cusading trophies, 2813
 —Doge's Palace, room, 3036
 —dominions in 1500, map, 3039
 —in 14th cent., 3037
 —Francis II obtains, 4183
 —Genoese rivalry, 2915-10, 3033
 —German merchants in, 2915, 3043
 —glass industry, 3035 3033
 —Grand Canal, 3043
 —Hon of S. Mark, 3031
 —marriage of the sea, 3032, 3036
 —Milanese rivalry, 3138
 —Napoleon and, 3048, 4183
 —Napoleon's troops in, 4182
 —oligarchy, members of, 3035
 —painting, school of, 3040-42
 —Piazza, 3030, 3011
 —the Piazzetta, 2813
 —plague regulations, 3112
 —printing centre, 3189-90
 —procession crossing Piazza, 3040
 —Rialto Bridge, 3013
 —S. Mark's, bronze horses, 2294, 2296, 2813, 3033
 —Byzantine chalices, 2441
 —façade, 3033
 —mosaic over porch, 3031
 —senators' costume, 16th cent., 3045
 —soldiers, 16th cent., 3039
 —Theodore's statue, 3036
 —trade and commerce, 2015, 3032, 3037
 —trade routes, early, 3031

Venice—cont.
 —trading vessels, 3034, 3038
 —Turkish wars, 15th-16th cent., 3047, 3140
 —warships, medieval tiremcs, 1639
 —waterside scene, 3042
Venizelos, E., Greek patriot, 4565
 4581, 4582
 —dismissal, 4761
 —foreign policy, 4757
 —regent, 4775
Vendhio Bassus, in Parthian War, 1792
Venns, in Greek mythology, 59
See also Aphrodite
Vera Cruz, Mexico and U.S.A., 4730
Verbiest, Jesuit adviser to K'ang Hsi 4052
Vereringtorix, 1528
 —and Caesar, 1445, 1727, 1784
Verdugo, commander of Catholic League, 3638
Verdun, captured by Prussians (1792), 4057
 —Fort Vaux in 1920, 4762
 —memorial on Mort Homme, 4763
Verdun, battle of (1916), battle of attrition, 4508
 —German attack, map, 4762, 4763
 —poison gas at, 4703
Verdun, Treaty of (843), map, 2422
Vere, Aubrey de, Hedingham Castle built, 2724
Vereeniging, Peace of, 4571, 4622
Vergennes, O. G., and American colonies, 411
Vergilio, papal ambassador to Luther, 3081
Vergil, 1888, 1890-91
 —Epicurean influence on, 1060
 —as forerunner of Christianity, 2215
 —Georgics, 1800
 —Greek influence, 1761
 —influence on European poetry, 2245
 —language in Eclogues, 1881
 —mosaic representation of, 1891
 —on Romans and Greeks, 1911
 —Stoic teaching, 1763
Vergniaud, P. V., leader of Girondins, 4171
Vernet, Carl, Bridge of Lod, 4092
 —Napoleon's troops in Venice, 4182
Vernet, Horace, Charles Albert of Sardinia, 3275
 —Louis Philippe, 4269
 —and sons, 4268
Vernau, battle of, 2085
Vernay, Sir Edmund, 3722, 3723
Verney, Sir Ralph, 3723
Vernon, family, motto, 2981
Vorona, league of 1107, 2760
 —stairway to Palazzo della Ragione, 3216
Verona, Congress of (1822), 4201
Veronese, Paolo, Alexander and the family of Darius, 12
 —Marriage of S. Catherine, 3046
 —Sir Philip Sidney, 3235
 —Venetian soldier, 3039
Verrall, A. W., Hellenist, 1566
Verres, Gaius, Cicero's attack, 1778
Verrocchio, Andrea del, statue of Colleoni, 2243, 3040
Versailles, building, 3837
 —gardens, 4299
 —Grand Trianon, 3839
 —Hall of Mirrors, 3839
 —as hospital, 4388
 —the Tennis Court, 4159
 —mob returning from, 384
 —procession of women to, 4082, 4140
 —royal bedchamber, 3840
 —in 1722, 3838
 —States-General at (1789), 3914
Versailles, Treaty of (1763), 3890
 —(1783), 411, 3910
 —French withdrawal from India, 4446
 —(1919), 4874
 —economic consequences, 4010
 —and the Jews, 3605
 —and League of Nations, 4021
 —signatories for Dominions, 4044
 —signing, 4875
Vertebrates, evolution, plate f.p. 80; 111, 190-1

Vertebrates—cont.
 —first appearance, 43, 63, 98, 111
 —with armour-plate, 112
Verulamium, Roman town, 2147
See also S. Albans
Veros, Aelius, 1072
Verus, Lucius, imperial authority shared with M. Aurelius, 1072, 1973
Verus, Marcus Annus : *see* Marcus Aurelius
Vervins, Treaty of, 3479
Vesalius, Andreas, anatomical work 3828, 5041
 —medical discoveries, 3338-39
 —supposed portrait, 3339
 —title page of *Epitome*, 3828
Vespasian, emperor, 1857, 1858-67
 —Britain conquered, 1854
 —Colosseum erected, 2023, 2054, 2056
 —Jerusalem besieged, 1957
 —Senate reformed, 1876
 —Judaea, conquest, victory coin, 1956
Vespucci, Amerigo, 3803
Vesta, goddess, 1734-37, 1748
 —temple at Rome, 1736, 1748, 191, 191
Vestal Virgins, 1748
 —deprived of revenues, 2322
Vestalia, Roman ceremony, 1748
Veterinary Science, in Egypt, 502
Vetrano, proclaimed emperor, 2193
Vetmoula, discoveries at, 1155-56
Via Aemilia, course of, 2033
 —Roman colonies bound together by, 4711
Via Flaminia : *see* Flaminian Way
Vicar, medieval, 3451
Vicars, John, account of Winceby fight, 3726
Vicentino, painting, Battle of Lepanto, 3175
Vico, Giovanni B., Buckle on, 4059
 —New Science, 4046
 —portrait, 4074
 —theory of knowledge, 4073
Victor I, pope, 2453
 —election and death, 2650, 2003
Victor IV, anti-pope, 2737
Victor Amadeus, King of Sardinia, 3882
Victor Emmanuel I, k. of Sardinia, and Italian liberty, 3615
 —restored in Sardinia (1814), 4107
Victor Emmanuel II, k. of Italy, 4370, 4378
 —death, 4558
Victoria, one of Magellan's ships, 3637
Victoria (Australia), 4609
Victoria (Hong Kong), in 1875, 4626
Victoria, Queen, accession, 4273
 —in coronation robes, 4273
 —death, 4573
 —as Empress of India, 4407
 —Koh-i-noor presented to, 3775
 —and Ottawa, 4606
 —portrait, 366, 4273, 4407
Victoria Falls, railway station, 4632
Victorian Age, literature of the, 4585
See also Nineteenth Century
Victorianism, modernism and, 5013
Victorious Majesty, engraved gem, 2319
Victory, crowning Athens, 1691
 —personified on Roman coin, 1612
 —statue removed from senate, 2323
Vicia, animal, 2502
Vienna, constitutionalists seize, 4367
 —Karl Mustapha and, 410
 —meaning of name, 2472
 —Napoleon enters, 4100
 —oath of fealty to Maria Teresa, 3800
 —Turks besiege, 3752, 3753
Vienna, Congress of, 4107, 4257, 4261
Vienna, Treaty of (1809), 4104
Vieux Dieu, trench digging at, 4747
Vigée-Lebrun, Mme., Marie Antoinette, 4951
Vigny, Alfred de, romanticism, 4311
Vijayanagar, Hindn kingdom, 2003, 3123, 3170
 —suttee memorial stone, 4455
Vik, fjord, 2524
Vikings, 2515-28, 2517, 2604
 —discover America, 2627
 —reason for raids, 2406
 —York relics, 2440
See also Danes; Northmen; Varangians

Villa, Francisco, 4728
 —invades U.S., 4730
 Villa Capra, Chi-wick House a copy, 4032
 Village, communal oven in, 2672
 —cottage life, 15th cent., 3438
 —and English social life, 2727
 —Frankish, 2662
 —in India, 237
 —land division in, 2662-63
 —medieval, 2663, 2670-1, 2671
 —scenes from (16th cent.), 3416
 —squalor, medieval, 3426, 3437
 Village Community, 2661, 2663, 2727-28
 Villani, Giovanni, on Guelphs and Ghibellines, 2763
 Villanova Culture, 1152-53
 —belt and brooches from, 1152, 1163
 —tomb, 1152
 —urns from, 1153, 1156
 Villars, Marshal, and Cevennes Protestants, 3871
 Villa Viciosa, battle of, 3710
 Villeinage, 2728-30, 3729, 3432
 Villèle, French minister, 4267
 Villeneuve, Admiral, Nelson in pursuit, 4100
 —voyage to W. Indies, 4188
 Villius, Lex Annalis passed by, 1803
 Vilna, Russians in (1910), 4881, 4882
 Vimy Ridge, Canadians at, 1771
 —French attacks on, 4755
 Vincennes, Mithran imprisoned at, 4160
 Vincent de Paul, S., and religious revival, 3805
 Vincent Ferrer, S., supports French pope, 3024
 Vinci, Leonardo da : see Leonardo da Vinci
 Vine, in ancient Egypt, 188
 —limits, map, 343
 —in Mesopotamia, 455
 Vine, Pietro della, 2844
 Vinea, Sherard, new poetry, 5019
 Vineyard, in Heracle Age, 848
 Vinland, 2527
 Virginia, foundations, 3547, 4006
 —Raleigh and, 3575
 —in 1611, Capt. John Smith's map, 3547
 —under Spotswood, 4000
 Virginia Company, 3547
 Virgin Mary : see Mary
 Viriathus, leader of Lusitanians, 1700
 Visby, Hansa at, 2053
 Visconti, family, in Milan, 3009, 3138
 —struggle with Venice, 3039
 Visconti, Gian Galeazzo, duke of Milan, 3009, 3134
 ——relief on tomb, 3009
 Vishnu, incarnation, tug-of-war, 351
 —statue of, 2398
 —See also Krishna
 Vishtasp, Persian monarch, 2307
 Visigoths, architecture, 3268
 —in Balkans, 2213-14
 —Christians in Spain, 3266-67
 —in Gaul and Spain, 2214
 —geographical division of, 2213
 —home of, 2201
 —Spanish kingdom, 2260, 2267, 2354-57, map 2356
 ——votive crowns, 2355
 —See also Germanic Peoples; Goths; Ostrogoths; Spain, Moorish
 Visscher, panorama of London, 3558
 Vista-planning, in Rome, 2057, 2059
 Vitalis, Orderious, on Norman character, 2003
 Vitaspatrium, on monasticism, 2275
 Vitellius, elected emperor, 1857-58
 Viticulture, under Roman Empire, 1994
 Vitruvius, 2035, 2067
 —Palladian style based on, 4032
 Vitry, Philippe de, Ars Nova of, 2008
 Vittoria, battle of, 4104, 4106, 4196
 Vitus, S., worship in Rugen, 3014
 Vivonae, Duc de, brother of Mme. de Montespan, 3995
 Vizier, dancing at funeral of, 557
 —duties, 544
 —Egyptian official, 495, 652
 —of Ramesses II, 678
 —See also Wazir

Vlachs, assimilation to Slavs, 2478
 Vladimir, model factory at, 1940
 Vladimir, Russian prince, 2638
 Vladivostok, held by Whites, 4061
 Vogt, Karl, thought theories, 4531
 Volcano, 80
 —in British Isles, 91, 110
 Volci, Etruscan burial chamber, 1158
 Volga, Russian control, 3919
 Volhynian Regiment, joins Bolsheviks, 4047, 4953
 ——suppresses revolt, 4951
 Volkerwanderungen, reasons for, 792
 Volney, Comte de, friend of Napoleon, 1184
 Volodarski killed, 4958
 Volscians, struggles against Rome, 1000-02
 Volosini, city, destruction, 1573
 —temple of Voltannna, 1597
 Voltaire, 4124
 —on Buffler, 4059
 —light for intellectual freedom, 4064
 —Houdon's bust, 4046
 —on Locke, 4050
 —on Louis XIV, 3874
 —on Louise de Quérouaille, 4002
 —revolt against classicism, 4045
 —and Romantic movement, 4802
 —statuette, 4124
 —and women's society, 383
 Volterra, 2757
 —hut-urn from, 1160
 —See also Etruria
 Voltumna, goddess, 1158
 —temple at Volosini, 1597
 Von der Tann (ship), at Jutland, 4849, 4850
 Votares, Minocan, plate f.p. 608
 Vredensky, and the Living Church, 4972
 Vroom, H. C., Armada tapestries, 3545
 Vulgate, Jerome's version, 1755, 1808
 —Latin language of, 1755, 1882
 —Sir Thomas More's designation, 3330
 Vulso, Manlius, defiance of the Senate, 1708
 ——war in Asia, 1691
 Vulture, Stele of, monument from Lagash, 430, 527
 Vyasa, teacher, on mountain of Kailasa, 2394

W

Wadsworth, Edward, modernist painter, 5037
 Wafer, Lionel, buccancer, 3816
 Wages, effect of war on, 4693, 4908-09
 —in the Middle Ages, 2023
 —post-war rise and fall, 4908
 —in the 20th century, 5007
 —in U.S.A., 5068, 5074
 Wagner, Wilhelm Richard, culmination of romanticism, 4317
 Wagon, English, 18th century, 4214
 Wagram, battle of, 4104, 4193
 Waitangi, Treaty of, 4613
 Wakefield, Edward Gibbon, and the Durham Report, 4603
 ——and the New Zealand Company, 4613
 ——portrait, 4612
 Walcheren Expedition, failure of, 4104
 Walcott, name origin, 2451
 Waldeck-Rousseau Ministry, and French workmen, 4133
 Waldstein, Albrecht von : see Wallenstein
 Wales, geological formation, 95, 96
 —language question in, 330
 —long-head type, early, 214
 —Norman conquest of South, 2614
 —political and speech boundaries, 302
 —racial questions, 214, 302, 309
 —under the sea in Cambrian times, 91
 —union with England, 2990
 —volcanoes in, 95, 96
 Walid, Khalif, 2355-57
 Walker, Emery, printer, 3199
 Walker, Sir Hovenden, attempt on Canada, 4025
 Walking-stick, from Tutankhamen's tomb, 699
 Wallachia, Turks and, 3124
 Wallas, Graham, sociologist, 5000

Wallenstein, Albrecht von, 3592, 3629
 ——his army, strength of, 3593
 ——Baltic policy, 3611-42
 ——character and career, 3629
 ——commisariat system, 3623
 ——dismissed by emperor, 3594, 3596, 3642
 ——final conflict with Gustavus, 3649
 ——al Lutzen, 3650-51
 ——murder, 3597, 3652
 ——recall, 3596, 3619
 Waller, Sir William, on Cromwell, 373
 ——letter to Hopton, 3723
 ——portrait, 3724
 Wallia, Gothic king, 2203-04
 Wallmoden, Amalia von, mistress of George II, 4223
 Walls, Constantinople, 1610, 2290, 2292
 —Long, of Athens, 1236, 1237, 1218
 —Middle Ages, town, 3435
 —Mycenaean, different types, 773
 —Roman, Aurelian's, 2120
 ——construction, 2030
 —British, 2041, 2133, 2141-42, 2144, 2149-50, 2155-56
 Walpole, Horace, on Kent's gardening, 4301
 ——on perils of the road, 4213
 Walpole, Sir Robert, 3851
 ——conservatism, 4202
 ——forced into Spanish war, 3886
 ——Jenkins's Ear and, 3883, 3886
 ——retirement, 3892
 ——twenty years' ascendancy, 3882
 Walpurgis Night, 3267-68
 ——witches' sabbath, 3260
 Walter, the Penniless, crusader, 2052
 Walter, the tiler : see Tyler, Wat
 Waltheof, Earl, 2723
 Walton, name origin, 2151
 Walton, Valentia, letter from Cromwell, 3726
 Walworth, name origin, 2451
 Waiworth, William, Mayor of London, strikes down Wat Tyler, 4101, 3102
 Wamba, Visigothic king, 2355
 Wambuti, pygmies of Congo, 197
 Wampum belt, 1063, 1004
 ——ideographic value, 297
 Wanamans, Egyptian ambassador, 1013
 Wandewash, battle of, 3901
 Wang Hsi-chih, calligraphist, 2540
 Wang Yang-ming, Chinese philosopher, 3519
 Wang Wei, landscape painting, plate f.p. 2553
 Wan Wang, leader of Chou dynasty, 442
 Wapping, execution Dock, 3846
 Warad Sin, king of Larsa, 573
 War Cabinet, Dominions represented in, 4044
 Ward, Sir Joseph, premier of New Zealand, 4625
 Wardum Mesopotamian slaves, 524
 Warens, Mme de, and Rousseau, 4306
 Warfare, agriculture and, 1713
 —Alexander's basic principles, 1440
 ——methods and tactics, 1429-46
 ——cave-painting, plate 203
 —economics and, 4693
 —elephant corps in Italy, 1571-72
 —future of, 4795, 4823
 —gods participated in, 639
 —gold as cause of, 359
 —Great War, development and new methods, 4795-4830
 —gunpowder in, 2949, 2953, 2956
 —Gustavus Adolphus's tactics, 3643-51
 —Hannibal's tactics and strategy, 1050-61
 —in herole age, 837, 838
 —idealisation of, 2984
 —medieval, 2044-56, 2980
 ——frightfulness in, 2018
 ——weapons used in, 2027-43
 —Napoleon's principles, 4197
 —naval, 20th cent., 4831-60 : see also Navy
 —new elements in, 4797-4823
 —origin, 389
 —principles, 1440

Warfare

Warfare—*cont.*
 —Roman, 1717-33
 —science and, 4785-96
 —shock tactics (16th cent.), 2934
 —slave system in, 1701
 —tactics of, 1636, 2931, 2944, 2956
 —Thirty Years' war, 3636-55
 —trade and, 4481
See also Great War · Tactics, *etc.*
Warramungas, Australian aborigines, totem of, 212
Warren Hill, stone implement from, 218
Warrior, Mycenaean, 787
Warrior, H.M.S., at Jutland, 4851
Warrior Vase, Greek soldiers on, 846
 —House of the, ruins, 811
Warsaw, Germans in, 4759
 —Russians leave, 4758
Warsaw, Duchy of, formation, 4191
Warship, ancient, 1638, 1639
 —Athenian, 1544, 1545
 —British, 4837-32
 —in Great War, 4837-53
 —Japanese, 4118
 —Roman, 1717-1733
Wars of the Roses, 3485-86
 —new families rise after, 3485
Warspite, H.M.S., at Jutland, 4851
Watson, Thomas, History of English Poetry, 4309
 —at Reynolds' party, 4210
Watwick, S. Mary's Church, 2034
Watwick, Earl of (Ambrose Dudley), costume, 3552
Watwick Earl of (Richard Beauchamp) effigy, 2933, 2934
Watwick, Earl of (Robert Rich), and colonisation, 3810, 4007
Watwick, Sir Philip, description of O. Cromwell, 3723
Wasbasba, defeated by Rameses III, 708
Washing, ceremonial, in Canaanitish religion, 824
Washington (state), admitted to Union, 4907
Washington (city), destruction, 4112
 —Pan-American congress at, 4340
 —war procession, 4736
Washington, George, in Braddock's expedition, 4025
 —portraits, 3908, 4111
 —as president, 4111
 —in War of Independence, 3908
Washington Conference (1921-2), 4520
 —and disarmament, 4889, 4932
 —and Welhawai, 4566
Washington, Treaty of (1871), 4510
Wassukkanni, Mitannian capital, 782
Water, jars for, at Akhetaton, 685
 —filtering, in Babylon, 572
 —heating, 287
 —man's dominion over, 334, 348, 464, 470
 —political importance of, 471
 —raising, Egypt, 438
 —supply, Croesus, 599
 —Rome, 2044; *see also* Aqueducts
 —transport, 291, 464-65
Water-clock, Babylonian, 977
 —Egyptian, 688, 704
Watering-place, English, 18th century, 4254
Waterloo, battle of, 4108, 4107
 —plan, 4108
Waterloo Bridge, in 1848, 4238
Wathek, Khalif, 2425
Watling, John, buccancer, 3816
Watling Street, Roman construction, 2035
Watt, James, pumping engine, 4362
 —and steam power, 4350, 4351
Watteau, Antoine, drawing of soldier, 4122
 —Halt in the Chase, 3944
Watts, G. F., John Stuart Mill, 4534
 —Lord Lawrence, 4469
 —Ripon, 4473
Wat Tyler's Rebellion, 3001
 —John Ball's sermon, 3099
 —Richard II and, 3100-01
 —suppression, 3102
See also Peasants' Revolt
Way, symbolical meaning, 448
Wayfaring, in Europe, 3448

Wazir, Fatimid, encourage arts, 2538-39
 —a Jew, 2540
Wazirite, creation of, 2412
Wealth, as origin of war, 389
 —Grecian view, 1188
Weaning, Greek method, 1287
Weapon, copper, Mesopotamian, 526
 —Egyptian styles, 34
 —evolution of, 247-88
 —in Elizabethan age, 3566
 —in Heroic Age, 846
See also Arms; Bow; Dagger; Spear; Sword
Wear, river, at Durham, 2711
Weaver, fish, 1471
Weaver (textile worker), at his loom, 1115
 —riot at Lyons, 4983
 —Scottish, strike (1812), 4670
Weaving, Cretan implements for, 591
 —in Egypt, 552, 553, 560
 —inventions (18th cent.), 4347
 —in Middle Ages, 2925
 —in Norman England, 2720
 —primitive, 290
 —by temple women, Ur, 530, 531
Weber, Carl, 4316
 —romantic opera, 4316
Webster, S. N., seaplane record, 5064, 5065
Wedmore, Treaty of, 2407
 —Danelaw established, 2410
Weeting, Grime's Graves, 274
Weibingen, family, 2657, 2746
Wei, Chinese dynasty, 2890, 2274
Wei Chuang, popular lullaby by, 2650
Weights and Measures, in archaeology, 34
 —Athenian, 1547
 —early use, 1545
 —steel-yard weight, portrait head, 2272
Welhawai, British naval station, 4566
 —restored in China, 4880
Wel-ho, geographical significance, 442
Weimar, Goethe's house, 3971
 —national theatre, 3953
 —Schiller's house at, 3967
 —in time of Charles Augustus, 3971
Weismann, August, portrait, 4530
 —theory of germ plasma, 4530
Weissenberg; *see* White Hill
Weldon, J. E. G., on De Civitate Dei, 2325
Welf, Bavarian house, 2657, 2740
See also Gudolph
Welleley, Marquess, in India, 4110-11, 4447
 —superseded, 4449
Wellesley, Sir Arthur; *see* Wellington, D. of
Wellington, 1st Duke of, 1103, 1265
 —defeats Marathas, 4449
 —imperial work of, 411
 —in Peninsular War, 4103, 4192
 —prime minister, 4263
 —typical Norfolk, 233
 —and W. Indian slavery, satire, 4638
Wellington (N.Z.), in 1813, 4613
Wells, family, armorial bearings, 2981
Wells, H. G., on Alex. the Gt., 1180
 —on empires, 390
 —novels, 5015
Wells, Walfred, mistress of Charles II, 4001
Welsh, language, 330, 1507, 1908
 —music, early part-singing, 2901
 —race, 214, 2418, 2451
Wen Cheng-ming, Chinese artist, 3520
Wenda, race, 2472, 2490
 —habitation, 3050
Went, warrior-noble, 539
Wenlock Edge, fossil corn from, 97
Wentworth, Benning, wealth, 4011
Wenzel II, king of Bohemia, 3004
Wenzel III, king of Bohemia, 3001
Wenzel, king of the Romans, 3006, 3007, 3008
 —death, 3136
 —and imperial crown, 3134
Wergeld, 2453
Wermund, English king, drawing of, 2453

Whetstone, Sir T.

Werth, Count von, captures Corbie, 3653
 —portrait, 3652
Werther, Chodowiecki's vignette, 3961
 —sentimentality, 3961, 4310
Wesley, Charles, 3891, 4206
Wesley, John, appearance and character, 4203
 —chapel in London, 1298
 —evangelistic work, 3891
 —with Hamilton and Cnle, 1205
 —and Lady Huntington, 4210
 —and Nonconformity, 4201
 —preaching at Rosanna, 4200
 —Spencer's resemblance to, 3946
 —portraits, 4204
Wesley, Susannah, mother of John and Charles, 4205
Wessex, 2461-62
 —Danish invasion (871), 2497
 —laws, 2462
 —supremacy, 2410
West, Benjamin, Penn and the Indians, 4019
West Dean, 13th cent. parsonage, 3422
Western Australia, founded (1829), 4609
 —primeval rocks, 81
See also Australia
Western Civilization; *see* Civilization
Western Empire; *see* Rome
Western Federation of Miners, 4504
West India Company, Dutch, 3546, 3551
West Indies, colonisation, 3550
 —Columbus discovers, 410
 —labour problems, 4693
 —slavery in, 3807
 —relations with U.S.A., 4727
 —slaves freed, 4638
 —Spanish possessions in, 3809
 —yellow fever in, 3119
Westminster, Agas' map of, 3560
 —Caxton's printing press, 3101-02
 —election of 1784, 4383
 —Painted Chamber, armoured horse, 2931
Westminster, Treaty of (1750), between Britain and Prussia, 3890
Westminster Abbey, coronation of William and Mary, 3748
 —Henry III's tomb, 2632
 —Henry VII's chapel, 3440
 —tomb, 3240
 —Parliament held in, 3670
Westminster Cathedral, 2637
Westminster Hall, in Agas' map, 3560
Westminster Hospital, foundation, 5046
 —indium treatment, 5038
Westmorland, Celtic place-names in, 2451
 —ownership of, 2708
Westphalia, duchy, 2739
 —Jerome Bonaparte and, 4102, 1791
 —linen manufacture in, 3945
Westphalia, Treaty of (1648), 3508, 3631, 3697
 —redistribution of territory, 3013
 —signed, 3655
 —Terburg's picture, 3632
Wexford, Cromwell's sack, 3731
Weymouth, in 18th century, 4254
 —George III at, 4253
Wheat, cultivation, beginnings of, 217-8, 450
 —in Egypt, 402, 488
 —growers, civilization of, 346, 437
 —on megalithic stone, 621
 —in Mesopotamia, 454, 455
 —spread to China, 446
 —in Sumerian jar, 3500 B.C., 460
Wheatley, Francis, painting, Married Life, 4250
Wheatstone, Charles, electric telegraph, 4698
Wheel, evolution, 201
 —obscure origin, 219, 291, 448
 —in Sumerian carving, 519
Wheeled Carts, Aryans evolve, 448
 —Chinese Yin dynasty invention, 448
 —Seythian, 931
 —from Ur (c. 3500 B.C.), 519
Wheeled Traffic, Roman law, 2050
Wheeler, John, Hianscald adventurer, 3000
Whetstone, Sir T., buccancer, 3813

- Whipping, at cart's tail, 3457
 Whistle, prehistoric, 294, 296
 Whitbread (Radical), satire on, 4433
 Whithy, Germans bombard, 4842
 Whithy, Synod of, in favour of Latin church, 2360
 — on fixing of Easter, 2683
 White, Sir George, at Ladysmith, 4572
 Whitefield, George, character and preaching, 4206
 White Friars : see Carmelites
 White Hill, battle of, 3592, 3620, 3637, 3638
 — Spanish organization at, 3642
 White Hans, 2203
 — Gipta dynasty overthrown by, 2396
 — invasion and settlement in India, 2274
 White Lily, Chinese secret society, 4648
 — rebellions, 4653
 Whitelocke, James, on Cromwell's troops, 3727
 — on power of Parliament, 3657
 White Races, effect of war on, 4694
 See also Negro Problem; U.S.A., Negro Problem
 White's Club, in The Rake's Progress, 4228
 White Sea, British trade with Russia, 3541
 White Township, Roman customs station, 1688
 Whitgift, Archbishop, on Puritans, 3707
 Whiteley Castle, Roman fortifications, 2112
 Whitney, Eli, invented saw gin, 4350
 Whittingham, Charles, printing revival, 3197
 Whittington, Richard, use of wealth, 4425, 4426
 Whitworth, screws and gauges, 4350
 Wickhoff, E., on Roman Art, 1027-9
 — on Pompeian paintings, 1030
 Wido, Guido, Duke of Spoleto, 2495
 Widatti, on Albion, 2220
 Wieland, C. M., and German literature, 3955
 Wiesbaden (ship), at Jutland, 4851
 Wiesloch, battle of, Bernard of Saxe-Weimar at, 3620, 3639
 Wissnowiecki, Michael, deposed king of Poland, 3751
 Wig, Egypt, 39
 — Middle Kingdom, 552, 553
 — XIX Dynasty, 678
 Wigwam, Indian hut, 280
 Wilberforce, William, 4400, 4402
 — and Abolition Society, 4400, 4508
 — and Hannah More, 4401
 — and slave trade, 4400
 Wild, Jonathan, as Bow Street runner, 4215
 — dragged to Tyburn, 4213
 Wild beast fights, Cleero on, 1820
 — Roman sport, 2024
 Wilde, Oscar, his aestheticism, 4548
 Wilfred, S., conversion of Sussex, 2453
 Wilkes, John, 4430, 4431
 — obelisk commemorating, plate *f.p.* 4319
 Wilkinson, John, and Watt's inventions, 4352
 Will, in ethics, Luther's teaching, 3346-7
 See also Determinism; Free Will
 Willendorf, Aurignacian statuette from, 198
 William I (the Conqueror), king of England, 2040
 — birth, 2007
 — birthplace, 2602
 — Church reform, 2732
 — Colchester Castle built, 2706
 — coronation, 2713
 — in England, 2708, 2713
 — England conquered, 2569-10
 — forest laws, 2731
 — land policy, 2719, 2731
 — London's charter, 2708
 — in Normandy, 2607
 — and the papacy, 2400, 3607
 — parents, 2602, 2607, 2713
 — signature, 2646
 William II (Rufus), king, 2657
 — seal, 2658
 William III, king of England, accession 3715-16
 — coronation, 3748
 — death, 3757
 — economic reasons for success, 392
 — introduced Dutch gardeners, 4299
 — landing at Brixham, 3747
 — marriage, 3743
 — in the Netherlands, 3741
 — official artist appointed for Marlborough's campaigns, 3758
 — and partition treaties, 3750
 — and war of Spanish Succession, 3750
 William IV, king of England, portrait, 4267
 William I, German emperor, accession, 4379, 4387
 — death, 4562
 — portrait, 4379
 — and Spanish crown, 4383
 William II, German emperor, accession, 4562
 — on the Goeben, 4752
 — in neutral territory, 4781, 4910
 — in 1913, 4587
 — Punch cartoons, 4562, 4576
 William, count of Holland, fight for imperial crown, 2825
 — death, 2825
 William (the Lion), king of Scotland, prisoner in England, 2740
 William I (the Bad), king of Sicily, 2695, 2698
 William II (the Good), king of Sicily, 2690, 2701, 2705
 — accession, 2699
 — coronation mosaic, 2696
 — Dante's estimate, 2705
 — death, 2705
 — marriage, 2706
 — Monreale Cathedral founded, 2690, 2703
 William, count of Toulouse, in Spanish war, 2118
 William and Mary College, Virginia, 4016, 4017
 William of Ockham : see Ockham, William of
 William of Rubruquis, and Chinese writing, 3507
 — among Mongols, 2817, 2853
 William of Volpiano, 2432, 2611
 Williams, John, archbishop of York, Puritan satire on, 3717
 Williams, Roger, in New England, 4017
 William the Silent, prince of Orange, 3407-08, 3470
 — assassination, 3474
 — medal commemorating, 3477
 — portrait, 3476
 Willibrord, apostle of Frisians, 2360
 Willoughby, Lord, governor of Barbados, 3813
 Willoughby, Sir Hugh, 3572
 — search for N.E. passage, 3570
 Wilson, T. Woodrow, 4712
 — in Big Four, 4877
 — and cabinet (1914), 4729
 — and the Clayton Act, 4515
 — elected president, 4722
 — first presidential address, 4724
 — and League of Nations, 4917, 4918
 — and Mexican president, 4337
 — The New Freedom, 4726
 — at Peace Conference, 4874, 4875
 — presidential campaign, 4712, 4718
 — returns to U.S.A. (1919), 4920
 — and small nations, 4923
 — in war procession, 4735
 Wilson, Mount, telescope and interferometer at, 53, 59
 Wiltshire, Celtic place-names, 2451
 — heakers from, 37
 Winchester, Edgar's charter to New Minster, 2466
 — Hospital of St. Cross, 3490
 — Roman town, 2147
 Winckelmann, J. J. von, art criticism, 3902, 3963
 Winden, Austrian name for Slovenes, 2172
 Wind Instruments, evolution, 296
 Windischgrätz, Prince, and Bohemian rebels, 4308
 — in Vienna, 4369
 Winds, zonal map, 338
 Wind Screen, Tasmanian, 287, 288
 Windsor Castle, Elizabethan pageant, 3502
 — S. George's Chapel, Garter stall, 2977
 Windy Corner, at Jutland, 4851
 Wine, in Babylonia, 572
 — Egyptian, 488, 552, 560
 — from dates, 488
 — in Heroic Age, 847
 — introduced into Germany by Romans, 328
 See also Ale; Beer; Mead
 Wine vessels, Greek, 997, 1040, plate 1203-09, 1270
 Winfrith, English missionary see Boniface
 Wingham, Kent, Egyptian Christian bowl, 2339
 — old English jewelry, plate *f.p.* 2451
 Winnipeg, site in 1870, 4607
 Winsields Crag, Roman Wall at, 2138
 Winstanley, Law of Freedom, 3703
 Winter King : see Frederick V of Bohemia
 Winthrop, John, governor of Connecticut, culture, 4017
 — founded Boston, Mass, 4007
 — letter to, concerning Cromwell, 3726
 Wire (in warfare), at Loos, 4807
 — tanks and, 4810
 Wire Fencing, in Argentina, 4327
 Wireless Communications, discoverers of, 4698
 — at Helligoland battle, 4836
 — history, 4703
 — transatlantic, first station, 4703
 — telephony, 5066
 — war-time developments, 4790
 Wisdom of Ben Sirach, Book of : see Ecclesiastical
 Wisdom Literature, Greek science's influence, 2065
 Wisdom of Solomon, Greek influence, 2086
 Wise, landscape gardener, 4301
 Wissler, Clark, on spread of culture, 219
 Witan, justice dispensed by king and, 2460
 Witchcraft and Witchess, 3253-53
 — in Assyrian religion, 971
 — belief opposed by Coleman of Hungary, 3162
 — devil a dethroned god, 3253, 3256
 — devils in, 3253, 3262
 — Elizabethan belief, 3562
 — executions, 3256, 3453
 — extermination of Fries and tribe for, 3152
 — familiars, 3261-62, 3263
 — persecutions, 3254, 3263, 3453
 — Thirty Years' War, 3021
 See also Magic; Sorcerer
 Witenagemot, Saxon, 2460
 — transformed under William I, 2613
 Wittiges, Ostrogoth king, campaign against Belisarius, 2205
 — and Merovingians, 2207
 Wittkind, Charlemagne's campaign against, 2117-8
 Witt, John de, Grand Pensionary, 3741
 — head of Dutch Republic, 3000
 Witt, John and Cornelius de. Capo Colony founded, 3763
 — murder, 3741
 Witte, Sergius, Count, and Treaty of Portsmouth, 4570
 Wittenberg University, founded by Frederick III, 3310
 — narrow orthodoxy, 3947
 Wittstock, battle of, 3053
 Wolf, in England, 31, 136
 — Miocene, 134
 — prehistoric painting, plate, 201
 — in Scotland, last, 137
 Wolf, of Landshut, armour work, 2041
 Wolfe, General, imperial work, 411
 — at Quebec 3807

Wolff, Johann Christian von, German Philosopher, 3917, 3918
 ———— edited Leibniz, 1070
 ———— and German language, 3949
Wollstonecraft, Mary, feminist, 4216
 ———— not a Rousseauist, 4066
 ———— speech to Burke, 4430
 ———— and women's rights, 393
Wollunqua, ancestral snake of Warra-
 rangas, 212
Wolsey, Cardinal, 3309
 ———— building of Hampton Court, 3111
Woman's Suffrage, Will and, 1531
See also Emancipation
Women, 365-386, 3983-4001
 ———— Athens, position in, 1282-85, 3985
 ———— Aurlingacian, 198-200
 ———— Babylonian, costume in, 535, 541
 ———— status in, 540, 577
 ———— in Battalion of Death, 375, 4053
 ———— in Brahman caste system, 2306
 ———— Capian, plates 207-08, 206
 ———— Carthaginian trade in, 1642
 ———— in cave art, 199-202, 206
 ———— China, status in, 3518
 ———— on Chinese stage, 3517
 ———— in chivalry age, 3425, 3427
 ———— Christianity, early spread by, 2178-9
 ———— in coal mines, 355, 1165
 ———— Crete, status in, 767
 ———— destiny controlled by moon, 362
 ———— diverging paths of men and, 365
 ———— and domestication of animals, 285
 ———— in early communities, 188
 ———— economic reasons for emancipation, 385, 393
 ———— in Egypt, Middle Kingdom, 519, 552, 653
 ———— Old Kingdom, 489
 ———— in 18th century England, 4215, 1232-50
 ———— Germany, 3964-77
 ———— in Hlyabethian age, 3501
 ———— emancipation after Great War, 367
 ———— beginnings of, 385
 ———— under Peter the Great, 3905
 ———— Sunday schools and, 4403
 ———— Employment, Report of Commission, 4406
 ———— as farm-labourers, ancient, 285, 372
 ———— killing shells, Great War, 4801
 ———— four factors governing status, 305-0
 ———— 14th cent. outdoor sport, 3427
 ———— in France, pre-Revolution, 4123
 ———— franchise, extension of (1923), 5082
 ———— Germanic tribes, position in, 2217
 ———— in the Grange, U.S.A., 4614
 ———— Greek home-life, 373, 374, 936
 ———— position of, 1282-85, 3985
 ———— in Heroic Age (Homeric Greece), 841-2, 843, 848-0
 ———— in history, influence of, 365-86
 ———— industrial position, 368-0
 ———— Islam, property inheritance, 2367
 ———— Italy, medieval, literary prominence, 3219
 ———— 9th-10th cent., power in, 2760-70
 ———— Japanese history, importance in, 2390
 ———— in Justinian Age, 2301
 ———— Magdalenian, costume, plates, 201-02, 250
 ———— medieval life, 3415
 ———— view of, 380
 ———— in Mesopotamia, 370
 ———— in Mycenaean days, 782
 ———— in politics, 3983-4004
 ———— pottery and basketry maker, 287
 ———— in prehistoric communities, 198-202, 208, 250
 ———— as priestess, 371
 ———— under Roman Empire, 2005, 2007
 ———— Roman law's attitude, 2103
 ———— Republic, 1826, 2005, 2249
 ———— in Russian army, 365, 4053
 ———— factory, 4010
 ———— under Sassanids, 2313-4
 ———— sexual morality, 369
 ———— share in primitive transport, 291
 ———— 16th cent. home sphere, 3448
 ———— as source of life, 350
 ———— in Sumeria, 540-42
 ———— as trade unionists, 4681
 ———— at treadmill, 4401
 ———— tribal instincts, 314

Women—cont.
 ———— in Turkey, modern, 368, 4885
 ———— at Ur, employed in temples, 530, 531
 ———— in U.S.A. factories, 4498
 ———— as warriors, 372-3, 375, 4053
 ———— war-time activities, 369, 4801
See also Amazons; Feminism; Humanitarianism; Marriage; Sex
Wommera: *see* Spear-thrower
Wonder, Elizabethan faculty, 3502
Wonder of the World, title of Emp. Frederick II, 2843
Wood, first use in tools, 210
 ———— much used in Egypt, 557
 ———— probably used before stone, 244
Wood-carving, ancient Egypt, 196, 502
 ———— Aztecs, 3376
 ———— primitive peoples, 204
Wood, Major Leonard, and staff, 4732
Wood Creek, American colonial forces at, 4024
Woodcut, in early printing, 3181 3182, 3192
 ———— Chinese, 2557
 ———— Ptolemaic, 36
 ———— in modernist art, 5031, 5037
Woodford, James, Diary of a Country Parson, 4293
Woodward, Sir A. S., and Pittdown Man, 199
Wool, Egyptian use, 552
 ———— English medieval trade, 2906, 2908-7, 2924
 ———— Tudor trade, 3484, 3490
 ———— Fellowship of the Staple, 2008-0
 ———— medieval trade, 2906-09, 2924-26, 3430
 ———— production, U.S.A., 4505
 ———— staple towns, 2908-0
See also Cloth Industry, medieval
Wool Combers' Union, initiation ceremony, 4672
Woolen Industry, British, growth, 4084
 ———— post-war depression, 5075
 ———— capitalism in, 4667
 ———— in 18th cent. England, 4347
 ———— German depression, 3945
 ———— U.S.A. development, 4487
Woolsthorpe Manor, Newton's birth-place, 3818
Worcester, battle, in Dutch satire, 3733
Worde, Wynkyn de, Caxton's assistant, 3192, 3194
Wordsworth, William, 4311
 ———— Greek influence on, 1561
 ———— history and The Prelude, 14
 ———— on Prussian overthrow, 4491
 ———— on Spanish resistance, 4492
Work, post-war decline in quality, 5077, 5091
Working Men's College, Ludlow and, 4675
Workmen, villago for, Akhetaton, 687
Workmen's Compensation Acts, economic reasons for, 398
World, Aristotle's theory, 1463
 ———— Babylonian conception, 974, 975
 ———— birth of 47-77, plate f.p. 56
 ———— creation, Babylonian legend, 611
 ———— Empedocles' theory of, 1453
 ———— Greek, homogeneity of, 1533
 ———— knowledge of before Alex., map, 1532
 ———— theories and explanations, 1452
 ———— as Herodotus knew it, 8, 1532, 1533
 ———— Ptolemy's boundaries, 2075
 ———— Roman, 1683, 1983-1999
 ———— stole theory of, 1465
 ———— Strabo's maps of, 2076
 ———— two geological continents, 107
See also Barth: Universe
World Lotus: *see* Lotus of the World
Worm, middle Cambrian, 91
Worms, Concordat of (1122), investiture conflict settled, 2656
 ———— peace between Empire and Church, 2774
Worms, Diet of, Luther at, 3310
Worms, Treaty of, 3893
Worringer, W., on Gothic architecture, 2882
Worship, dominance in Monasticism, 3419
 ———— Jewish instinct for, 1948

Worsley, D. of Bridgewater's coal-fields, 4345
Worth, battle of, 4385
Wotan, god of the Germans, 4204
Wrangel, Karl G., Swedish commander, 3654, 1655
Wrangel, Peter, leader of Whites, 4903
Wrasse, early drawing of, 2171
Wren, Sir Christopher, 3238, 3241
 ———— dining-room, 4218
 ———— Greenwich Hospital, 4237
 ———— Renaissance influence on, 3238, 3241
 ———— S. Clement Dances, 4240
 ———— S. Mary-le-Bow, 4237
Wrestlers, Greek, 1304, 1322
Wrestling, in Egypt, 553, 554
 ———— in England, medieval, 3150
Wright, Orville, 4709
Wright, Wilbur, 1709, 4737
Writing, 1061-30
 ———— Aramean inscriptions, 1062, 1064, 1065
 ———— Aztec, 36, 1065, 3371
 ———— Babylonian, 1067
 ———— Byblus, 1076, 1078
 ———— Caroline book-hand, 3186, 3188
 ———— Central American, 1061, 1065
 ———— Chinese, 1067, 1071, 3509
 ———— earliest, 298, 142, 115, 1070
 ———— improvements in, 2102
 ———— styles and characters, 1070, 1071
 ———— Cretan theory of origin, 597, 1066:
See also Minnow, below
 ———— cuneiform:
 ———— Cypriote, 610, 1068
 ———— earliest, 36, 260, 297-98, 1063
 ———— Easter Island, 36, 1065
 ———— Egyptian, 298, 495, 504, 1074
 ———— three phases, 1074, 1075
 ———— Etruscan, 708
 ———— evolution of, 1064
 ———— examples that defy translation, 1065
 ———— germ of, 297
 ———— Glagolitic, 1062
 ———— Gothic, 1062, 3186, 3187
 ———— Greek syllable, 1066
 ———— Hebrew, 1063, 1076
 ———— hieratic, 1074
 ———— hieroglyphic, 36, 564-65, 1071
 ———— Iktite inscription, 1065
 ———— humanistic, 3186, 3187
 ———— ideographic, 1063, 1067, 1076
 ———— importance in civilization, 471
 ———— independent systems, 36
 ———— Indo-Sumerian, 450, 1065
 ———— in Japan, 1073, 2300
 ———— Latin, 1755
 ———— Mahomedan in Spain, 3287
 ———— Mayan, 1065, 2574, 2575
 ———— Mesopotamian, development, 510, 518
 ———— Minnow, evolution of, 600, 764, 1066
 ———— Middle, 604, 605, 607
 ———— minemonic, 1063
 ———— oldest alphabetic, 1078
 ———— origia of, Egyptian and Cretan theories, 1066
 ———— Pahlavi script, 1080
 ———— Phaestus Disk, 605, 607
 ———— Phoenician, Zakkula, in Golenischeff papyrus, 805-06
 ———— Phoenicians and, 610, 800, 1066
 ———— phonetic, 298, 565, 1064
 ———— pictographic, 1063
 ———— from Harappa, 460
 ———— and printing, 3186, 3187
 ———— quipqu, Peruvian, 3378
 ———— Renaissance, 3188
 ———— Sanskrit, 1063
 ———— Semitic, 806, 1068, 1076
 ———— Sumerian, 436, 1068
 ———— Indian, related form, 450, 1065
 ———— as vehicle of language, 321, 322
 ———— Zakkula's script, early Phoenician, 806
See also Alphabet
Wroxeter, Roman town, 2147
Wu, Chinese empress, 2545
Wulstan, archbishop, 2407, 2707
 ———— signature, 2646
Wurley, Australian aboriginal's, 288
Wurm Ice Phase: *see* Ice Age
Wu San-Kuei, defection from Ming cause, 4647

Wurzburg, surrender to Gustavus, 3649
 Wu Tao-tze, Chinese painter, style,
 2553, 2554
 Wu Ti, Chinese emperor, 2104
 Wyatt, James (architect), Fonthill
 Abbey, 4305
 Wyatt, Sir Thomas, poetry, 3500
 Wycliffe, John, 3072-75
 — *30th translated*, 3074, 3075, 3103
 — influence in Bohemia, 3070, 3076
 — Poor Preachers of, 3074-75
 — portrait, 3075
 — and Puritanism, 3357, 3716
 — religious reforms, 3074
 — represented in Bohemian psalter,
 3075, 3076
 Wycliffe, Sir John, monumental brass
 at Great Tew, 2933
 Wye House, orangery, 4913
 Wykeham, William of, motto, 2073
 Wylie, W. L., boarding of neutrals,
 4835
 Wyoming, admitted to Union, 4507
 Wytchaeze Ridge, gun captured at,
 1771

X

Xanadu, Kublai Khan's palace at
 Chanda, 2851
 Xanthippus, aids Carthaginians, 1378
 Xanthus, Harry tomb, 1040
 Xavier, S. Francis, early disciple of
 Loyola, 3310, 3082
 — as missionary, 3525, 3691
 — Rubens' picture, 3080
 Xenophon, March of the Ten Thousand,
 1247, 1403
 — works, 1138, 1545
 Xeres, captured from Saracens, 2827
 Xerxes, dream of world empire, 401-02,
 411
 — at Eighth Troy, 866
 — Greece invaded, 1000
 — palace at Persepolis, 1135-1141
 — burned by Alexander, 1442
 Xipe, Mexican god, mask of, 3360, 3368
 — sacrifices to, 3368-69
 Xochimilli, god of flowers, 3366
 X-Rays, discovery, 4704
 Xylophone, in Africa, 294

Y

Yacht, Greek, 993
 Yagans, natives of Tierra del Fuego,
 313, 335
 Yahuarhagaa, Inca ruler, 3380
 Yahweh, 635
 — compared with the Aton, 752
 — development of Jewish worship, 824
 — Moses and worship of, 821
 — as tribal god, 630
 — Yarus compared with, 655
 Yahya, Berber chieftain, 3393
 Yakub (Jacob), name among Hyksos
 kings, 435
 Yakub el-Mansur, prince, 3270
 Yakub Khan, amir of Afghanistan,
 4469
 Yale, University of, foundation, 4017
 Yamashiro, early Japanese capital, 2391
 Yanet, Phoenician prince, scarab, 1012,
 1013
 Yang Chien, emperor, 2274, 2541
 Yang Chu, philosophical doctrines, 1227
 Yang-tse Kiang, 445
 Yankees, Galvanised, meaning, 4492
 Yarmouth, Countess of: see Wall-
 modern, A. S. M. von
 Yarre, Hittite monuments at, 718
 Yavana, tribe, astronomical know-
 ledge, 1503
 Year, arrangement and estimates, 976,
 1479
 — lunar, in Babylon, 976
 — eleventh division, 3260
 Yeats, W. B., Georgian poetry, 5019
 Yellow Fever, 3118-19
 — Rio cleared from, 4931
 Yellow Peril, in U.S.A., 4065
 Yellow River, ancient ubiquity of, 315
 Yellow River: see Hwang-ho
 Yellow Turbans, rebellion, 2104
 Yeman, the Opah of Solomon, 3401

Yemenites, in Spain, 3266-67
 — manner of life, 3284
 Yeneselsk, Russian colonisation of, 392
 Yen Lu-pen, portrait of Christ, 3508
 Yeoman, English, 3433
 Yermak: see Basil, son of Timothy
 Yezdigird I, of Persia Christianit;
 under, 2310
 Yezdigird II, of Persia, presenting neck
 to wife, 2313
 Yezdigird, the Unlucky, of Persia, wa
 with Mahomedans and death, 231
 Yezid I, khalif, 2351
 Yezid II, khalif, 2358
 Yezo: see Hokkaido
 Yin (dynasty), 412
 — bronze work of, 446
 — inscribed antler of, 445
 — Wan Wang overthrows, 442
 Yoga, system of, 2399
 Yonge, Charlotte M. pictures of con
 temporary life, 4403
 Yoritomo, first shogun, 2989, 4413
 — portrait, 2990
 York, as archbishopric, 2469
 — Merchant Adventurers' Guild hall
 3181
 — Roman, 2146
 — legions at, 2140, 2144
 — tombstone from, 2140
 — tower of wall, 2144
 — S. Mary's Abbey, 2477, 2893, 2896
 — Severn dies at, 1880
 — Viking relics, 2149
 Yorktown, Cornwallis capitulates at,
 3999
 — 18th cent. character, 4013
 Young, Arthur, and Preston-Wigan
 road, 4343
 Young, Edward, Night Thoughts, 3950.
 407
 Young, Thomas, propounds aether
 hypothesis, 4526
 Young Turks, 4565
 — demand for constitution, 4578
 — government set up, 4585
 Young Women's Christian Association,
 foundation, 4409
 Ypres, after bombardment of 1015, 4750
 — beltry, 3080, 3081
 — Cloth Hall, 2896, 3080, 3081
 — effect of gunfire, 4821
 — in medieval times, 3081, 3092
 Ypres, 1st battle of, 4708
 — — — British artillery at, 4809
 — — — naval guns at, 4841
 — — — poison gas at, 4793
 — — — trenches in, 4802
 Ypres, 3rd battle of, 4812
 — — — tanks at, 4819
 Ypres, Salient of, British hld, 4748
 — — — disappearance of, 4774
 — — — in winter, by D. Y. Cameron,
 plato f.p. 4773
 Yuan (dynasty), founded by Kublai
 Khan, 2853
 — overthrown, 2990
 Yuan-ming Ynan, summer palace,
 Peking, plate, 4657-8
 Yuan Shih-k'ai, elder statesman of Tzu
 Hsi, 4062, 4666
 Yucatan, 3377
 — Mayas in, 2575-76, 2583, 2588
 — religion in, 3378
 Yueh-chih, people, 1931, 2100
 Yugoslavs, 2479
 Yugo-Slavia, democracy fails in, 5080
 — friction with Italy, 4882
 Yugra, Russian expansion, 3924
 Yung Ohng, famille rose porcelain,
 plate, 4660
 Yung Lo, fight for throne, 3512
 — — — mausoleum at Peking, 3511
 — — — Peking rebuilt, plate 4659
 — — — temple at Peking, 3515
 Yung Lo Ta Tien, Chinese encyclopedia,
 3519
 Yün-kang, rock carvings, 2549, 2550
 Yün-an, peoples and cultures in, 445
 Yungpani, Inca ruler: see Pachacutec
 Yurt, used by Mongol nomads, 2847,
 2850
 Yussuf, in Spain, 2647
 Yusupov, Prince Felix, and Rasputin's
 murder, 4946

Za, or Zet, king, grave stele, 500
 Zab, river of Mesopotamia, 457
 — battle on (750), 2411
 Zacharias, pope, relations with Papi
 the Short, 2415-6, 2486
 Zahidan, Seljuk state, 2788, 2793
 Zahir ed-Din Mohammed: see Babar
 Zaid, general, Persian campaign, 2347
 Zaiton, China Franciscans, medieval,
 at, 2911
 — harbour, medieval, 2909
 — Odoric of Pordenone on, 3508
 — perhaps T'auen-chow, 2910, 3519
 Zakkai, J. Ben, School of the Law, 1961
 Zakkala, defeated by Ramesses III, 706
 — may have invented writing, 808
 — origin, 706
 — taught Phoenicians navigation, 805
 Zakro, seals from, 698
 Zaleucus, code of law, 1042
 Zallaca, battle of, Alfonso of Castile
 defeated, 2047
 Zama, battle of, 1591, 1664, 1665
 — — — Scipio Africanus' tactics at, 1725
 Zambezi, region Portuguese occupa-
 tion, 3401
 Zangi, lord of Mosul, conflicts with
 Crusaders, 2654
 Zannekyn, Flemish captain, 3081
 Zanzibar, Arab slave trade centre,
 4631, 4633
 — British protectorate established, 1634
 — the cathedral, 4633
 Zapolya, John of Hungary, vassalage,
 3162
 Zapotec, people architecture 2582,
 2584
 — manuscript (Zouche Codex), 3373
 — mosaics at Mida, 2584
 — in Oaxaca province, 2584, 2588
 — and Toltec pyramids, 2594
 Zarathustra: see Zoroaster
 Zaru, Egyptian frontier fortress, 680
 Zawiye el-Aryan, unfinished tomb, 491
 Zebu, domesticated type, Egypt, 180
 Zebulun, territory of tribe, 813
 Zechariah, prophet, teaching, 1048
 Zechstein, deposits, 104
 Zedekiah, on throne of Judah, 833
 Zeebrugge, raid on, 4770, 4780
 Zelaya, Nicaraguan dictator, 4898
 Zeligowski, troops in Vilna, 1881
 Zell, Ulrich, printing press, Cologne,
 3165
 Zeman Shah, Afghan chief, 4447
 Zemindar, collector of revenue, 4450
 Zen, doctrine, 2551
 Zenana, painting of Mogul, 3780
 Zeno, emperor, 2257, 2258
 — flight from Constantinople, 2209
 — — — in motion of, 2258, 2340
 — restoration, 2208, 2209, 2255
 — war with Ostrogoths, 2255
 — wife, 2250
 Zeno, of Citium, founder of Stoicism,
 1331, 1481, 1604
 rivalry with Epicurus, 1909
 Zeno, of Elea, logical arguments and
 puzzles, 1454
 Zeno, of Tarsus, 1904
 Zenobia, of Palmyra 2118, 2120, 2121
 Zenodotus, literary works, 2108
 Zenta, battle of, 3754
 Zephaniah, date of prophecies, 832
 — and Scythian invasion, 834
 Zephiah, archbishop, trial, 1072
 Zepherus, at Juland, 4846
 — L33, brought down, 4846
 — small results, 1931
 — surrendered to British, 4787
 See also Airship
 Jar, king, bracelets from tomb, 489, 551
 — gold-cased beads, 350
 Zerubbabel, Jewish governor, 1948-9
 Zeser, king of Egypt, 420, 424
 — mastaba, Belf Khallaf, 491
 — pyramid of, 424, 563, 564
 — wealth of Egypt under, 425
 Zeus, god, altar at Pergamum, 1690,
 1691
 — altar to Zeus Herkelos, in courtyard,
 840
 — cave of, vases from, 789

Zeus—cont.

- character, 1361
- Dione wife of, 1366
- family and political conceptions, 1373
- great head of, 1372
- Greek ideas regarding, 1109
- head of Zeus-Asclepius, 1373, 1379
- Homeric idea of, 1375
- hymn to, by Cleanthes, 1905
- important in Trojan War, 851
- Jupiter identified with, 1747
- lord of heaven and hell, 1371
- marriage with Hera, 1366-7, 1372
- as nature god, 1372
- statue by Phedias, 1372
- of Zeus Olympius, 1372, 1379
- in Stoic philosophy, 1465
- triple god of nature, 1366, 1372
- with thunderbolt, on coin, 1491
- See also Jupiter
- Zeuxis, painter, 1936
- Ziboeles, war with Bithynia, 1526
- Ziemio Norska : see Nur Land
- Zieteo, General, with Frederick II, 3981
- Ziggurat, of Ur, 510, 527, 528
- See also Ur
- Zimabwe (Great), lost civilization and ruins, 3390, 3400-01
- Zimises, John, 2510, 2512
- association with empress Theophano, 2510, 2511
- murder of Nicephorus, 2511
- Zimmer, Prof. A. E., on nationalism, 3605
- Zimri, Elah killed by, 820

- Zinc, Australian, Germans and, 1689
- deposition, 107
- Zingari : see Gypsies
- Zinoviev, 1964, 1965
- extreme policy, 3973
- fall, 1975
- in Lenin group, 1951
- on Lenin's studies, 1950
- Zinzendorf, Count N. von, founded Hermit Soc., 3940
- Zion : see Jerusalem
- Zion, Hill of, Haram el-Sherif, oo site of Temple, 1949
- Ziska, John, military tactics and discipline, 2050
- shield (' pavois ') invented, 3146
- victories in Hussite wars, 3137
- Zobel, 2930
- alliance to Khalif Ali, 2349
- Zodiac, Signs of, influence in astrology, 2082
- Zoe, empress, 2512
- favour to Hayek Hanraada, 2527
- husbands of, 2514
- thanks to Constantinople people, 2514
- Zollverein, Austria and, 4379
- economic benefits, 1440
- and N. German prosperity, 1274
- Zoosphere, animal creation, 333
- Zorndorf, Russians defeated at, 3900
- Zoroaster, birth and life, 2307
- influence on Iranian religion, 1129
- new religion founded, 2307
- reform of Magian religion, 2900

- Zoroastrianism, dualistic doctrine, 2090
- influence on Quao-tel-m, 1506
- modern followers, 2308
- Moslem extermination, 3165
- Ormuzd supreme god of, 364 : see also Ormuzd
- three fundamental principles, 2307
- Zoser : see Zeser
- Zouche Codex, Aztec-Mexican M.S., 3361-65, 3369, plate f.p. 3371, 3372-75
- Zrinyi, Nicholas, formation of Hussar regiments, 3157
- Hungarian rising, 3162
- Zubov, Valerian, against Persians, 3941
- Zug, canton, invasions, medieval, 3089
- member of Swiss Confederation, 3089
- Zulu, moderate long-head, 229
- Zululand, annexed by Britain, 4560
- Zulu War, 4490
- Zungaria, corridor of, 347, 441
- Zuni, pueblo, present day, 2573
- Zuni Indians, religion, 363
- Zuravn, Peace of, 3752
- Zürich, city, history, medieval, 3088-9
- Massacre isolated at, 1094
- siege of, 3080
- Zurich, Treaty of (1859), 4377
- Zusmarshausen, battle of, 3598, 3655
- Zutphen, taken by Spanish, 3470
- Zuyder Zee, land submergence in, 28
- Zverdlow, Russian revolutionary, 4951
- Zwebl, General von, on tanks, 4827
- Zwingle, Ulrich, reforming movement, 3312

List of Errata

- Vol. I, page x. Folding Colour Chart, Rise and Fall of Empires—for 'page 420' read '402.'
- Page 149, 1st line under illustration—for 'on' read 'near.'
- Page 407, under illustration—for 'B.C.' read 'A.D.'
- Page 417, date of First Olympiad—for '766' read '776.'
- Page 442, first line under illustration—for 'page 346' read 'page 436.'
- Plate facing page 528. Last line under illustration—for 'Nebuchadrezzar II' read 'Nabonidus.'
- Plate facing page 529, third line—for 'tin' read 'silver.'
- Plate facing page 609, top-right inscription—for 'M. III' read 'M.M. III.'
- Page 614, col. 2, 14 lines from bottom—for 'Chapter 21' read 'Chapter 20.'
- Page 699, last line—for 'Taurt—childbirth' read 'lions.'
- Page 1184, col. 1, 13th line from bottom—for 'Chapter 55' read 'Chapter 52.'
- Page 1394, 15th line from top—for 'page 1562' read 'page 1550.'
- Page 1499, first line under illustration—for 'A.D. 78' read 'A.D. 120.'
- Page 1560, last line under illustration—for 'altitudes' read 'attitudes.'
- Page 1599, 3rd line under illustration—for 'page 1614' read 'page 1596.'
- Page 2128, col. 1, 19th line from bottom—for 'A.D. 224' read 'A.D. 324.'
- Page 2269, first line—for '467' read '567.'
- Page 2384, col. 2, 27th line—for 'former' read 'latter.'

- Page 2505, col. 2, last line before heading—for '953' read '1053.'
- Page 2505, col. 2, 10th line from bottom—for '954' read '1054.'
- Page 2513, last line—for '1300' read '1030.'
- Page 2870, 2nd line, for '473' read '404.'
- Page 2883, heading under illustration—for 'Upward-soaring Piers that Support' read 'Aspiring Verticality of the Piers In.'
- Page 3117, 4th line from bottom—for 'Chapter 190' read 'Chapter 189.'
- Page 3263, 6th line from bottom—for 'Lord Coke's definition' read 'Sir Edward Coke's definition.'
- Page 3561, last line under illustration—for 'long since demolished' read 'demolished after the fire at Westminster in 1834.'
- Page 3762, col. 1, 10th line from bottom—for 'Patkal' read 'Patkul.'
- Page 3787; though the point is disputed, most modern authorities now place the Peacock Throne in the Diwan-i-Khas.
- Page 3962, 3rd line under illustration—for '1855' read '1835.'
- Page 3966, 1st line under upper illustration—for '1720' read '1790.'
- Page 4276, 3rd line under illustration—for 'Italy' read 'Chile.'
- Page 4299, last line—for 'London' read 'Loudon.'
- Page 4301, col. 1, 17th line and 3rd line under upper illustration—for 'London' read 'Loudon.'
- Page 4586, third line under illustration—for 'eighty' read 'eight.'

CLASSIFIED LIST OF MAPS

Arranged by Continents, Countries,
Nations and Cultures in Order of Time

Aegean Cultures	
Aegean area	423, 466
Mediterranean cultures before 1580 B.C. .. .	599
Pre-Hellenic and Crete	757
At time of Egyptian Empire, 1580 to 900 B.C. .. .	658
Mycenaean Greece	772
<i>See further under Greece and Mediterranean.</i>	
Africa	
15th and 16th centuries, native kingdoms and .. .	
Portuguese explorations	3390
Explorations of the 15th and 16th centuries .. .	3520
British expansion in 1881-1928	4590
America, Central	
Maya Empires	2500
Latin Republics	4335
America, North	
Prehistoric culture areas and sites	2560
Mexico Valley and City in Aztec times	3362, 3363
Explorations of the 16th century	3526
Spanish and Portuguese possessions in 1763 .. .	317
English and other European colonisation .. .	317, 4006
Federal and Confederate States, 1860 to 1864 .. .	4391
The United States of America with dates of .. .	
admission to the Union	4488
Dominion of Canada	4601
Latin Republic (Mexico)	4335
America, South	
Prehistoric culture areas and sites	2560
Spanish and Portuguese possessions in 1763 .. .	317
Inca Empire	3384
Explorations of the 16th century	3526
Latin Republics	4318
Asia	
In Alexander's Empire, 323 B.C.	405, 1422
After break-up of Alexander's Empire	1582
Spread of Hellenistic culture, 4th to 3rd cents. B.C. .. .	1400
Trade routes in Roman times	1002
Mahomedan conquests 7th century A.D.	2346
Under the Mongol Empire, 13th century A.D. .. .	2819
Medieval trade routes	2913
Eastward boundary of Tamerlane's Empire .. .	3104
<i>See also China, India</i>	
Asia Minor	
Earliest organized civilizations	423
Hittite Empire	714
At time of Egyptian Empire, 1580-900 B.C. .. .	658
Movements of Peoples of the Sea, 1221 B.C. .. .	795
Conditions at time of Trojan War	852
During Assyrian Empire and Greek colonial .. .	
expansion, 900-612 B.C.	374
After fall of Assyria, 612-550 B.C.	892
In 5th century B.C.	1084
In Empire of Darius the Great of Persia .. .	1126
Alexander's conquest	1402
In Alexander's Empire, 323 B.C.	405, 1422
Movements of Celtic peoples, 4th cent. B.C. .. .	1508
Commerce and trade routes in Hellenic period .. .	1530
After the break-up of Alexander's Empire .. .	1582, 1076
In late Hellenistic times, 2nd century B.C. .. .	1688
Rome's first entry, 183 B.C.	1706
Under Roman Empire	1902
<i>colour plate facing p.</i>	
S. Paul's travels	2174
Under Eastern Roman Empire, 7th to 9th .. .	
centuries A.D.	2340, 2410
Under Seljuk Turks, 11th and 12th cents. .. .	2780, 2798
In Turkish Empire	3030
<i>See also Mesopotamia, Syria, Turkey</i>	
Assyria	
Rise of Assyria before 960 B.C.	658
The Empire, 906-612 B.C.	874
<i>See also Mesopotamia</i>	
Australia	
The first colonies, the Federal Commonwealth .. .	
and Australasia	4608
Austria	
At the close of the Middle Ages	3122
At the time of the Thirty Years' War	3618
In the age of Louis XIV	3738
In the 18th century	3878
Austria—cont.	
In the Napoleonic era	412, 4090
After the Congress of Vienna, 1815	4258
After the Great War	4870
<i>See also Holy Roman Empire</i>	
Babylonia	
At time of Egyptian Empire, 1580-900 B.C. .. .	658
The Chaldean Empire, 612-550 B.C.	892
In Alexander's Empire, 323 B.C.	405, 1422
<i>See also Mesopotamia</i>	
Balkan Peninsula	
Movements of Slavonic peoples, 6th century A.D. .. .	2475
Territorial changes between 1878 and 1914 .. .	4681
China	
Physical bases of Chinese culture	442
Sphere of influence under Han Dynasty	2100
In 4th century B.C.	1582
Trade routes in Roman times	plate f.p. 1962
Under the Mongols, Jenghiz and Kublai Khan .. .	2819
Medieval trade routes	2013
British Empire	
Development	coloured chart facing p. 402
First and Second Empires, 1763 and 1928 .. .	4593
Egypt	
Physical features and early sites of Upper and .. .	
Lower Egypt	401, 482
Lower Egypt, Syria, etc., at time of Empire .. .	658
The Empire, 18th Dynasty	680
Commercial products in Hellenic period	1530
Under the Saiteans	2798
Mameluke kingdom (small inset map)	3122
England and Great Britain	
Geological—population and distribution of .. .	
rocks with coal and iron fields	78
Geological—age—sequence of rocks	90
Land and sea in Silurian, Carboniferous and .. .	
Triassic Periods	97, 103, 108
Roads, towns and fortresses in Roman times .. .	2138
Saxon, Celtic and Scandinavian place-names .. .	302
Distribution of pagan Saxon burials	2450
In 7th, 8th and 9th centuries to Alfred's .. .	
kingdom	2110
Europe	
Continental variations and cultures in Glacial .. .	
and Inter-glacial periods	chart f.p. 220
Effects of the Ice Age shown in changed .. .	
climates and loess deposits	102, 103
Probable origins and distribution of language .. .	
groups	324 325
Primeval distribution of grassland and forest .. .	436
Natural vegetation in primeval times	343
Neolithic and Bronze Age cultures	619
Prehistoric peoples and cultures from 3000 B.C. .. .	900
Prehistoric trade routes	908
Greek powers after Persian War, 5th cent. B.C. .. .	1230
Movements of Celtic peoples to 4th cent. B.C. .. .	1508
At time of Roman Republic, 2nd century B.C. .. .	1688
The Roman Empire under Trajan	coloured
<i>map facing p.</i>	
After fall of Roman Empire, 5th to 7th cents. A.D. .. .	1002
Eastern Roman Empire, 5th to 8th cents. .. .	2250, 2346
Spread of Slavonic peoples in the east, 6th .. .	
century	2475
Mahomedan conquests in 7th century	2316
Establishment of Holy Roman Empire by .. .	
Charlemagne, 8th-9th centuries	2110
Partition under Treaty of Verdun, A.D. 843 .. .	2422
After break-up of the Carolingian Empire, 9th .. .	
to 11th centuries	2404
Distribution of Powers in 13th century	2818
Medieval trade routes	2000
At the end of the Middle Ages, 15th century .. .	3122
Period of the Thirty Years' War, 1618 to 1648 .. .	3618
During reign of Louis XIV, 1660 to 1713 .. .	3738
In the 18th century, 1713 to 1789	3898
In War of Austrian Succession and Seven Years' .. .	
War, 1740 to 1763	3898
The Napoleonic Empire, 1804 to 1812	412, 4086
Settlement after Congress of Vienna, 1815 .. .	4258
The Powers after the Revolutions, 1848 to 1878 .. .	4861
The belligerent Powers in the Great War	4742
After the Great War, treaties of 1916 to 1923 .. .	4870
<i>See also Mediterranean Region</i>	

List of Maps

France		
Development of kingdoms and peoples, <i>chart f.p.</i>	402	
Caesar's campaigns in Gaul	1782	
Kingdom of the Franks, 6th and 7th centuries	2256	
As part of the Carolingian Empire	2410	
Emergence at the Partition of Verdun, 841	2122	
After the break-up of the Carolingian Empire, 9th to 11th centuries	2494	
English dominions in 1259	2818	
English dominions in 1429	3122	
Gains after the Thirty Years' War, 1648	3618	
In the Age of Louis XIV, 1660-1713	3738	
Before the French Revolution, 1713-89	3878	
Napoleon's Empire	412	
Expansion in Europe under Napoleon	4080	
After the Congress of Vienna, 1815	4258	
In the Great War, five main stages in the campaigns of 1914-1918	4744	
After the Great War	4876	
Germany		
Development of kingdoms and peoples, <i>chart f.p.</i>	402	
At the time of the kingdoms of the Franks and Ostrogoths, 5th to 7th centuries, A.D.	2256	
Emergence at the Partition of Verdun, 841	2422	
After the break-up of the Carolingian Empire, 9th to 11th centuries	2494	
In the 13th century	2818	
At the end of the Middle Ages, 15th century	3122	
During the Thirty Years' War	3618	
In the age of Louis XIV	3738	
Under Napoleon, 1812	4080	
After the Congress of Vienna	4258	
In period following revolutions, 1848 to 1878	1361	
After the Great War	1876	
<i>See also</i> Holy Roman Empire		
Great Britain : see England and Great Britain		
Great War		
The belligerent Powers, 1914	4742	
The Western Front, five main stages in the campaign, 1914 to 1918	4744	
The Eastern Front, 1914 to 1918	1760	
British and German Naval Bases, Scapa Flow and Kiel	4841	
The battle of Jutland	4847	
Greece		
Prehistoric, the earliest cultures	590	
Prehistoric, the cradle of Mycenaean culture, 17th to 16th centuries B.C.	772	
During movements of Peoples of the Sea	795	
Development and varying fortunes from prehistoric to modern times, <i>coloured chart f.p.</i>	402	
In Homeric times and the Trojan War	862	
The Greek States after the Dorian Invasion	984	
Colonial expansion, 900 to 650 B.C.	874	
The struggle with Persia, 6th century B.C.	1084	
The battles of Marathon, Salamis and Thermopylae	1008, 1100, 1101	
City States at the time of the Persian War	1106	
The Greek world after the Persian War	1230	
City States at time of Peloponnesian War	1283	
Spartan (Peloponnesian) and Athenian Leagues	1391	
Macedonian sphere of influence before Alexander	1402	
In Alexander's Empire	1422	
Greek culture in Asia	1490	
Raid of Illyrian Celts in 4th century B.C.	1508	
Commerce, products and trading leagues in Mediterranean and Asia Minor	1530	
At time of rise of Rome, 3rd century B.C.	1574	
Achaean and Aetolian Leagues, 3rd to 2nd centuries B.C.	1670	
Under Rome in the 2nd and 1st centuries B.C.	1688	
In Eastern Roman Empire, 5th century A.D.	2256, 2346, 2410	
Holy Roman Empire		
Rise and fall	<i>coloured chart facing p.</i> 402	
As established by Charlemagne	2410	
Its partition under the Treaty of Verdun	2422	
Under Otto I, A.D. 962	2494	
In the 13th century, about 1270	2818	
Beginning of Hapsburg and Hohenzollern power 1396-1402	3122	
At the time of the Thirty Years' War (1618-48)	3618	
In the Age of Louis XIV, 1600-1713	3738	
Between 1713 and 1789	3878, 3808	
<i>See also</i> Europe; Germany		
Hungary		
Movements of Slavonic peoples, 6th century A.D.	2475	
Magyar origins, 9th century A.D.	3148	
India		
Invasion of the Aryans	441	
In Alexander's Empire, 323 B.C.	405, 1422	
Spread of Hellenistic culture, 1st to 3rd cents.	1490	
After the break-up of Alexander's Empire	1582	
Trade routes in Roman times	<i>plate f.p.</i> 1962	
From Gupta Empire to Chakravyan Empire, 400 to 640 A.D.	2306	
Medieval trade routes	2913	
Under the Moslem Empires, 10th to 14th centuries	3164	
Mogul Empire under Akbar and Aurangzib, 1555 to 1707	3772	
Disintegration of Mogul Empire, 1707-51	3798	
Italy		
Peoples and cultures up to First Iron Age	900	
Northern part in Etruscan times	1151	
Phoenician trading and settlements	1176	
In period of Greek colonisation, 8th to 6th centuries B.C.	985, 1048	
At time of Athenian Empire, 5th century B.C.	1230	
Movements of Celtic peoples 4th century B.C.	1508	
Commerce and products in the Hellenic Age	1530	
In the Hellenistic Age, with Sicily	1417	
In Alexander's Empire	1422	
Rise of Rome, 6th to 3rd cents, B.C.	1574, 1592	
During Hannibal's campaigns, 219 to 203 B.C.	1660	
The Roman world in the 2nd century B.C.	1688	
<i>See further under</i> Rome		
The kingdom of Italy after Charlemagne, 11th to 13th centuries	2101, 2818	
Wars of the Guelphs and Ghibellines, 12th to 13th centuries	2752	
The Venetian Empire, 15th century	3030	
In the 17th century	3738	
In the Napoleonic Empire, 1803 to 1812	4080	
After the Congress of Vienna, 1815	4258	
Middle of the 19th century	4304	
Japan		
Rise of cultures	2382	
Jerusalem		
The Lath Kingdom	2798	
<i>See also</i> Palestine, Syria		
Mediterranean Region		
Natural vegetation in primeval times	843	
Neolithic and Bronze Age cultures	819	
Peoples and cultures from 3000 B.C. to Iron Age	900	
Prehistoric trade routes	908	
Culture areas before 1500 B.C.	423, 590	
Phoenician and Carthaginian cities and trading centres, 10th to 7th centuries B.C.	1176	
In period of Greek colonisation, 8th to 6th centuries B.C.	985, 1048	
Movements of Celtic peoples, 4th century B.C.	1508	
Commerce and products in Greek times	1530	
In Alexander's Empire	1422	
At time of the rise of Rome, 3rd century B.C.	1574	
The Roman world in the 2nd century B.C.	1688	
At time of Roman Empire, <i>colour plate f.p.</i>	1962	
After the fall of Rome	2256	
Under Eastern Roman Empire	2346, 2410	
After break up of Carolingian Empire	2494	
Distribution of Powers in 13th century	2818	
Medieval trade routes	2900	
At the end of the Middle Ages	3122	
In the 17th century	3738	
In the Napoleonic Empire	4080	
After the Congress of Vienna	4258	
<i>See also</i> Greece; Italy; Rome; Sicily		
Mesopotamia		
At the dawn of history	455	
The early city states	512	
Early civilizations to 1500 B.C.	423	
At time of the Egyptian Empire, 1680 to 900 B.C.	658	
The Assyrian Empire, 900 to 612 B.C.	874	
The Chaldean Empire, 612 to 550 B.C.	892	
In the Empire of Darius the Great, 522 to 485 B.C.	1126	
In Alexander's Empire, 323 B.C.	405, 1422	
After the break up of Alexander's Empire	1582	
In Roman Empire under Trajan, <i>colour plate facing page</i> 1962	2346	
Under the Khalifate, 7th and 8th centuries A.D.	2780	
Under Seljuk Turks	2780	
<i>See also</i> Asia Minor; Assyria; Babylonia; Syria		
Near East : see Asia Minor; Mesopotamia; Syria, etc.		
Palestine		
In the early days of Israel	813	
Under the Kings of Israel and Judah	821	
Kingdoms of Judah, Israel and Philistia, 900 to 550 B.C.	874	

List of Maps

Persia		
Development of kingdoms and peoples, <i>coloured chart facing p.</i>	402	
The Empire of Darius ^{the Great}	401, 1126	
In the wars with Greece, 450-478 B.C.	1084	
As part of Alexander's Empire	405, 1422	
After the break-up of Alexander's Empire	1532	
After the fall of Rome	2256	
The Sassanid Empire	2308	
At the time of the Saracen invasions	2346	
In the 10th century	2730	
Medieval trade routes	2913	
In the 15th century	3122	
Poland		
In the 17th century (Louis XIV)	3738	
The partitions of 1702 to 1795	3878	
In the Napoleonic era	4080	
In the Great War	4760	
After Congress of Vienna, 1815	4258	
Rome		
The rise and fall of the Empire, <i>coloured chart facing p.</i>	402	
The rise of Rome, 6th to 3rd centuries B.C.	1574, 1592	
During Hannibal's campaign, 219 to 203 B.C.	1660	
Roman world under the Republic, 2nd century B.C.	1088	
The Empire under Trajan with trade routes to India and China	1062	
The invasions of the barbarians, 5th to 7th centuries A.D.	2256	
See further Eastern Roman Empire under Europe; and Italy		
Russia		
Under the early Romanovs with explorations in Siberia and Mongolia, 16th and 17th centuries	3918	
In the Great War, 1914 to 1918	4760	
After the Bolshevik revolution	4876	
Sicily		
Phoenician towns and trading centres, 10th to 7th centuries B.C.	1176	
At the time of Greek colonisation, 8th to 6th centuries B.C.	935, 1648	
Under the Greeks, 6th and 5th centuries B.C.	1230	
In the Hellenistic Age	1417	
Commerce and products in Greek times	1530	
In the 2nd century B.C.	1638	
Rise of Rome, 6th to 3rd centuries B.C.	1574, 1592	
Under the Roman Empire	406, plate f.p. 1902	
After the fall of Rome	2256	
After the break-up of the Carolingian Empire	2404	
At the time of the Saracen invasions	2346	
The Norman kingdom	2692	
Kingdom of Sicily in the 13th century	2818	
At the close of the Middle Ages	3122	
Kingdom of the Two Sicilies in 17th and 18th centuries	3738, 3878	
Kingdom of Sicily in the Napoleonic era	4080	
The Two Sicilies, 1815-78	4258, 4304	
Spain		
Development of kingdoms and peoples, <i>chart f.p.</i>	402	
After the fall of Rome	3256	
At the time of the Saracen invasions	2346	
In 8th to 9th centuries A.D.	2410	
After break-up of the Carolingian Empire	2494	
In the 13th century	2818	
At the close of the Middle Ages, 15th century	3122	
In the 17th century (Louis XIV)	3738	
In Napoleon's Empire	4090	
Syria		
Under the Hittites	714, 732, 733	
Under the Phoenicians, to 1580 B.C.	409	
At the time of the Egyptian Empire, 1580 B.C.	658	
Movements of the Peoples of the Sea, c. 1220 B.C.	795	
At time of Assyrian Empire, 900 to 612 B.C.	874	
After the fall of Assyria, 612 to 550 B.C.	892	
At time of Athenian Empire, 550 to 478 B.C.	1084	
As part of Alexander's Empire, 323 B.C.	405, 1422	
After the break-up of Alexander's Empire	1582	
As part of the Persian Empire	401, 1126	
When Rome first entered it, 133 B.C.	1766	
Under the Roman Empire	406, plate f.p. 1062	
Journeys of S. Paul	2174	
After the fall of Rome	2256	
The Latin Kingdom of Jerusalem	2798	
Under Saladin I, 1520 to 1566	409	
See also Palestine		
Turkey and the Turks		
Development of kingdoms, <i>chart facing page</i>	102	
Under the Roman Empire	406	
The Empire of the Seljuk Turks, 11th and 12th centuries	2194, 2780	
The Ottoman Empire, 13th century	3030, 3122	
Under Soliman I, 1520 to 1566	409	
In the 17th and 18th centuries	3738, 3878	
In the Napoleonic era	4080	
After the Congress of Vienna, 1815	1258	
Turkey in Europe, 1845 to 1878	4304	
Under the Treaties of Sèvres and Lausanne, 1920 to 1923	4870	
United States of America; see America, North		
The World		
Geological formation from Cambrian to Pliocene		
Periods	coloured chart facing p. 96	
Formation of main mountain systems	81, 85	
Temperature and rainfall chart	332	
Growth of vegetation in relation to wind, rainfall and temperature	338	
Early home zone of modern man, his origin and spread, in three phases related to cranial shapes	190, 210, 230	
Modern distribution of cranial shapes	231	
Probable cradles of 8 great families of speech	324	
Modern distribution of language groups	325	
As known to Herodotus	3, 1532	
As known to Eratosthenes and Ptolemy	2074, 2076	
Voyages and discoveries of the 16th and 17th centuries	3526	

List of Plans

Alexandria, town and harbour laid out by		
Alexander	1439	
Cannae, the battle	1658	
Carthage, the Phoenician city	1615	
Constantinople (Byzantium) under Justinian	2289	
—in 1422	3125	
Dogger Bank, its formation	27	
Gaugamela, the battle	1441	
Gizeh, Pyramids	508	
Issus, the battle	1435	
Marathon, Athenian and Persian armies	1098	
Memphis, Egyptian pyramid field and necropolis	508	
Ostia, Roman harbour works	2050	
Plassey, the battle	3094	
Rome, the villages on the Seven Hills	1599	
—the Republican city, 6th century B.C.	1810	
—the Forum Romanum	2015	
—the Imperial City after 29 B.C.	2002	
—drainage systems	2052	
Salamis, the Græco-Persian naval campaign	1100	
Silchester, Roman-British town	2150	
Thermopylae, the country at the time of the Persian War	1101	
Trafalgar, the fleets engaged	4100	
Trasimene, Hannibal's defeat of the Romans	1656	
Waterloo, the opposing armies	4108	
Zama, Hannibal's defeat by Scipio	1665	

